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A HEAD OF POLYCLETAN STYLE FROM THE
METOPES OF THE ARGIVE HERAEUM.*

[PLATE XIV.]

The marble head which is here reproduced on PLATE XIV is one of the many interesting finds of this season's (1894) excavations by the American School of Athens at the Argive Heraeum. The members of the School who joined me in the work were Dr. Washington, Mr. Richard Norton, Mr. Hoppin, and Mr. Alden.

It would, of course, be impossible to give at the present moment an adequate account of these discoveries. For this we shall have to wait until the conclusion of the excavations, when the mere work of arranging the numerous objects and fragments will occupy a considerable period with arduous labor. But the important bearings of this head upon the other sculptures we have unearthed at the Heraeum, as well as upon the history of Greek art in its highest period, make it incumbent upon me to publish

* As a former pupil of Professor Henry Drisler, I deeply regret that I was not notified of the proposal to do him honor by dedicating to him a volume of essays written by his former pupils, in commemoration of the fiftieth anniversary of his university work at Columbia College. I hope that, in accepting the dedication of this slight archaeological essay, he will realize the lasting respect and gratitude which I feel for him.

C. W.

it at this early date, and to accompany the publication with some explanatory remarks, giving the main bearings of the discovery. These remarks are therefore of a purely preliminary character.

The head was found to the east of what on last year's plan we called the East Chambers, to the northeast of the second temple, and below the slope of the first or early temple. On a line with this point there appeared for a short distance (about eight feet) a continuation of the Cyclopean wall supporting the platform of the early temple. We had here to cut off the slope of the early temple to a depth of about twenty feet. The objects here found were chiefly of the Mycenæan and Dipylon period. But at the point where this marble head was found, nearer to the northeast corner of the second temple, there appears to have been an accumulation of *débris* massed together in either the Roman or the Byzantine period. A marble head of Roman workmanship was found in immediate proximity to this head. Mr. Hoppin was in charge of the work at the time of the discovery.

The head is of Parian marble, about one-half life-size, and represents a Greek youth or *ephebos*. It evidently came from an alto-rilievo, as the right side and ear are finished in work, while the left side and ear are not finished. The dimensions are: length of face from tip of chin to hair, 0.11 m.; breadth at ears, 0.08 m.; length of nose (tip to brow), 0.036 m.; length of mouth, 0.03 m.; distance from eye to ear, 0.04 m.; height of forehead, 0.03 m.; width of upper lip, 0.005 m.; distance from mouth to tip of chin, 0.03 m.; horizontal line from top of forehead to back of head, about 0.12 m.

It appeared to us immediately after the head was taken from the earth that there were clear traces of a reddish-brown color marking the iris of the left eye. These traces were visible for some time after and may be seen even now. But, as there were vestiges of similar color on other parts of the head, which may well have been caused by the oxidation of iron near it, I do not feel absolutely certain that the color on the eye is a remnant of the original coloring of the statue. So, too, the right side of the head has a uniform coating of some white color, which may be due to the remains of a ground-tone given to the whole head; or, on the other hand, it may be a chalky deposit caused by the chem-

ical action of matter lying about it, or of some additional treatment which the head experienced in later times.

The chief element of the archaeological importance which this head possesses is the fact that it seems to bear traces of Polycletan art or influence. These must appear to any student trained in the rudiments of the history of Greek sculpture. And this fact will appear still more noteworthy in the light of the hasty statement of Professor Furtwängler recently published in his essay dedicated to Professor Brunn, and repeated in his *Meisterwerke der griechischen Plastik*. In discussing the now well-known head which we discovered at the Heraeum in 1892, and for which the name Hera still remains the most suitable, Professor Furtwängler not only considers this head Attic in character, but he further states that "all the other sculptures found by us or by Rhangabé at the Heraeum have nothing whatever to do with Polycletus and his school." I have endeavored to refute this assertion in a letter recently sent to the *Berliner Philologische Wochenschrift*. But the discovery of the head here published will, I must believe, finally demonstrate *ad oculos* the groundlessness of Professor Furtwängler's statement.

The Polycletan character of this head, and its close relation to the head of the famous *doryphoros*, in the Naples specimen as in all others, was manifest to me the moment the head was unearthed. This relationship to the heads which are universally acknowledged, by all authorities, to be Polycletan was subsequently admitted by all archaeologists who visited the Heraeum.

To begin with the general impression of character, we find it the same in our marble head and in the types of the *doryphoros*.¹

¹ I have not reduced this critical comparison to the form of actual mathematical measurements. Though I think such attempts as have recently been made by A. Kalkmann (in his *Die Proportionen des Gesichtes in der griechischen Kunst*) meritorious and worthy of encouragement, I cannot myself follow this course, especially when it concerns heads of different dimensions, different workmanship, and different destination, such as metope-heads, pedimental heads, heads of statues, etc. I prefer to aim at a careful comparison of the technical and artistic characteristics based upon sober and unbiased observation, and then to endeavor to put, as accurately and soberly as possible and into definite terms, what is thus perceived; and finally to assign tangible and perceptible causes for this artistic appearance. It may be difficult to do this, and I may often fail in my endeavor; but I would beg the student to follow me closely in comparing photographs or, if possible, casts. I find that measurements in this case would not be of much use in dealing with phenomena so subtle and unmechanical, nay, more than organic—namely, artistic.

This general impression which these Polycletan heads leave upon the spectator is that of squareness and massiveness. In the profile view this character approaches most closely to the possibility of mathematical demonstration. The outline, which depends more upon the rough blocking out of the marble, is more likely to retain the mathematical rules which guided the artist at this early stage. Now, if we ignore the curious rise of one mass of hair on the top of our head (which we may in this case discard as an individual trait not characteristic of the general style of the school), the proportions are singularly square. A perpendicular line drawn from the point of the chin upwards, and meeting the main horizontal line placed on the top of the head, is the same in length as this horizontal line bounded by perpendiculars running along the front and back of the head.

In the front-view, this impression of squareness and heaviness is maintained in the outline, in that the head is broad and comparatively short. This is best perceived by comparing the Polycletan heads with the others, say of the well-known Lysippean and Praxitelean types. The outline of our head is thus large and square; while the Lysippean head of the *apoxyomenos* in the Vatican is small and round. Again, the Praxitelean head of the *Hermes*, though larger than either in proportion, is wider at the top and at the forehead, but is longer, and tapers toward the chin. The front-view outlines of these three types of head present the following shapes:



POLYCLETAN DORYPHOROS.



LYSIPPEAN / APOXYOMENOS.



HERMES OF PRAXITELES.

The impression of squareness and heaviness is further produced or strengthened by the treatment of the different features. The brow and eye present a simple, broad, and flat curve. Though in the profile view the root of the nose forms a marked projection,

still the eye is not deeply sunk, either in its relation to the brow and upper lid, or by the hollowing out of the portion below the lower lid, as is done in most heads of the fourth century B. C. The brow is thus broad and simple, and the distance between the eyelids is comparatively great, while the eyes are far apart. The line at the juncture between nose and brow is more rounded in our head than in the other heads of the *doryphoros* type.

The nose itself is broad and comparatively short. The tip is broad and rounded, not pointed and long, in profile view, as is the case, *e. g.*, in the Bologna bronze head called by Furtwängler the Lemnian Athena of Phidias, or in the *apoxyomenos*, or slightly drooping downwards, as in the Hermes. In these Polycleatan heads the tip is not pointed as in the others, but, if we continue the lines of the bridge of the nose, it is the broadest part. Again, from nostril to nostril the nose is comparatively very broad; by contrast, that of the *apoxyomenos* (of which the nostrils are certainly unrestored) is in this respect much narrower, almost pinched in expression. The nose of the Polycleatan head is one of the most effective features in giving to the face its heavy appearance.

The cheeks, especially in the profile view, present a comparatively plain surface, and their heaviness is heightened by the treatment of the chin. Unfortunately, a piece is broken away in the front of the chin of our head; still, the comparative absence of taper and its broadness and shortness are manifest, while, in the profile view, the distance from neck to chin is short.

But a most important feature is the mouth. This, slightly opened, has a somewhat pouting expression; and appears smaller than it really is, owing to the characteristic marked projection of the middle part of the thick lower lip, a feature which *all* the heads from the Heraeum have in common, and which they share with the heads hitherto admitted to be Polycleatan. In the profile view, the deep grooving between the lower lip and chin accentuates the projection of the lip and adds to this pouting expression.

This expression of the mouth, coupled with the general proportions of the head, the broadness of brow, the wide distance between the eyes, the shortness and thickness of nose, the massiveness of cheek, jaw, and chin, give to the whole head a character of heaviness which contrasts strongly with the grace, softness, and roundness of Attic work.

Another marked feature which our head has in common with Polyeletan heads is the position of the ears. The top of the ear is on a line with the upper eyelid, while the end of the lobe is on a line with the upper lip below the nose. A comparison with the *Capronesi* head in the British Museum, with the *apoxyomenos*, Hermes, and other fourth-century heads, shows a much higher position of the ear; while the various *doryphoros* heads, as well as the head of Hera, have the low position of the ear. In fact, all the features just enumerated are shared by our head and the types of the *doryphoros* in a marked degree.

But I must now also dwell upon the deviations in the style of this Heraeum head from that of the head of the *doryphoros*. Yet it will be found that the heads of works universally admitted to be Polyeletan (such as the bronze head by "Apollonios" at Naples, the head of the Naples statue, the marble *doryphoros* of the Vatican, the *diadoumenos* of Vaison, etc.) differ considerably among each other, and that these divergences from the established Polyeletan type are much more marked in the *diadoumenos* of Vaison than in our head.

These deviations are to be found, first, in the fact that the general modelling of our head is less definite and clear-cut than in the "Apollonios" bronze. But this is probably due to the peculiarities of the marble technique in contradistinction to bronze work. I have already referred to the slight difference in the treatment of the line at the angle of brow and nose, which in our head is not so firm and severe, but is more rounded. The eyelids also are not cut with the same firmness.

But the most important difference is to be found in the treatment of the hair. No doubt, our head has suffered much by the wear of time, in that the sharpness of the ridges in the modelling of the hair has been lost. But the artist never gave the peculiar sharpness of the *doryphoros* hair to this head. Instead of the fine modelling of the single strands, not thickly undercut, lying flat over the scalp, which allow the shape of the skull to appear well-defined (so marked a feature in the hair of the *doryphoros*), the hair of our head is cut in larger, vague masses, slightly indicated; though the characteristic shape of the skull is not hidden by this treatment, as it usually is in such cases.

The deviations may be well accounted for by several causes. First, the difference between marble and bronze technique. The hair of the *doryphoros* marks that stage in bronze technique in which the locks are not cast in bold relief but follow the masses of the form, and the reminiscences of the older toreutic art in its finer engraving-work still assert themselves. The marble technique in the second half of the fifth century B. C., however, had introduced a freer treatment in broader masses, and in the work of detail some of the minute precision had been lost. But these differences of style have been remarked in the works hitherto ascribed to Polycletus. Furtwängler himself has pointed out² the difference in the style of the Amazon and the *doryphoros*. He gives circa 440 B. C. as the date of the Amazon. "But his *doryphoros* is certainly not later, but earlier than the Amazon, as the latter demands the existence of the former, and as its style, especially in the flat-lying hair, appears older." The date of the *doryphoros* would thus be earlier than 440 B. C.; and, if there are discrepancies in the treatment of hair between that work and the Amazon, how much greater must we expect the discrepancy to be between it and a work which cannot be earlier than 423 B. C.

Finally, we must bear in mind the original destination of different works as modifying the treatment of details. The hair as treated in a pedimental figure, or in one from a metope or a frieze, to be seen from a great distance, must necessarily be different from that of a work to be seen close at hand. If, for instance, Furtwängler is right in his ingenious identification of the Bologna bronze head with the head of the Lemnian Athena by Phidias, how could we ascribe this work, with its richly-modelled hair, and the lapith-heads from the metopes of the Parthenon, with their cap-like expanse of hair (no doubt assisted in the indication of texture by color), to the same Phidian origin—if we judged merely from the treatment of this detail.

Though, as I believe I have shown elsewhere, the comparison which Furtwängler makes between our head of Hera from the Heraeum and the small Brauronian head at Berlin, so far from showing any relationship between them reveals essential contrasts; still, even if we could trace some Attic elements in the Hera head

² *Meisterwerke der griech. Plastik*, p. 414.

and the other sculptures from the Heraeum, these would in no way make them Attic. For it would be strange if, with the advance made in marble work in Attica during the period of the artistic leadership of Phidias, and with all the sculptured decorations of the numerous buildings erected in this period at Athens, the sculptors working at the Heraeum more than twenty years later should not have felt the Attic influence, as probably the Parian marble-workers had, at an earlier period, influenced the Attic workers in marble technique. It would be a curious and unprecedented view to maintain that Polycleetus and his school never worked in marble. Still, I suspect that this general view is held by Furtwängler, and that it is this general view which has led him to such a sweeping and hasty statement with regard to the sculptures from the Heraeum.

Should traces of Attic workmanship be found in some sculptures of the Argive school, it is probable that we may find Argive influences in the Attic work of this later period, as they have already been suggested by Petersen and others in earlier Attic work.

We must remember that, at the date of the building of the Heraeum, Phidias was dead, Polycleetus was distinctly the most renowned sculptor of Greece, and that the Argive school under him was so famous and flourishing that its offshoots spread over Greece, and may have started that important school at Sicyon which made this town the most noted centre for painting as well as sculpture in the next century. If Lysippus is reported to have considered the *doryphoros* of Polycleetus his teacher, no doubt many an artist contemporary with Polycleetus was equally influenced by his works, even if such an artist lived at a distance. And there is one instance of a definite work upon which I must lay some stress. For I again venture to suspect that Furtwängler may have been guided in assigning an Attic origin to the Hera by the similarity of head-dress which this work has to the Caryatides of the Erechtheum. I had noticed this similarity; but I discarded any idea of the immediate identity of school, when I compared the rounded treatment of the faces of the Attic maidens with that of our head of Hera. Yet the similarity in other points is most natural, when we consider the proximity of date between the

building of the Athenian and the Argive temples. Furthermore, we must remember that among the famous works of Polycletus, according to Cicero (*in Verr.* iv. 3-5), were two Canephorae maidens which he represented in the Attic dress. The existence of such well-known works by the most famous sculptor of the day would well account for the similarity; *only it would be the Caryatides of the Erechtheum which would be influenced by the Argive work, and the Attic influence in the head-dress of the Hera would be illusory.*

But to return to our head of the *ephebos*. In spite of the differences in the treatment of the hair, the characteristics of this head are distinctly those of the *doryphoros* head, and it must thus be classed as Polycletan. It only confirms what all other arguments led us to believe, that all the works from the temple of Hera (in which Polycletus of Argos, the leading sculptor of the day, fashioned the famous gold and ivory statue) are Argive works of the Polycletan school, as the sculptures of the Parthenon are Attic works of the Phidias school. And it would require very powerful reasons and numerous definite facts to justify us in doubts of this natural ascription.

CHARLES WALDSTEIN.

August, 1894.

STAMPED TILES FROM THE ARGIVE HERAEUM.

Clay that is to be fired presents an opportunity easily to fix a name so that it shall become more durable than one laboriously chiseled in stone. This opportunity is one too tempting to be neglected, and from the time when the Assyrians stamped their bricks, down to the present day, it has been improved. Tiles and bricks made by Romans, and impressed with the names of the legions by whom and for whom they were made, have been found all over Western Europe.¹ Perhaps less attention has been paid to Greek material of this character because the material itself has been less abundant. Birch (*Ancient Pottery*, p. 116 ff.) gives a list of the examples known at the time of the publication of that work. But that was nearly forty years ago; and even the second edition is more than twenty years old. In this interval many additions have been made to our stock.

The two great excavations at Olympia and Delos, to be sure, added little to this material. But at Lycosura many tiles were found bearing the stamp Δεσποίνας.² We also have three stamped tiles from Chios,³ two from Magnesia,⁴ two bricks from Tralles.⁵ Similar material comes from the Peiraeus,⁶ Tanagra,⁷ Tegea,⁸ Ela-teia,⁹ and Eretria.¹⁰ Of especial interest is a tile fragment from the temple of Apollo at Amyclae, in the Central Museum at Athens, and not yet published. On this the stamp has been impressed twice. The first time it was done so carelessly that only the top

¹ MARINI, *Inserizioni doliari*; BIRCH, *Ancient Pottery*, at the end.

² *Excavations at Megalopolis*, p. 141.

³ *Mitth. des deutsch. Arch. Inst., Athen*, XIII, p. 182.

⁴ *Ibid.*, XIV, pp. 105, 106.

⁵ *Bull. de Corr. Hellén.*, x, p. 327.

⁶ *Ibid.*, xi, p. 209.

⁷ *Ibid.*

⁸ *Mitth. des deutsch. Arch. Inst., Athen*, IV, p. 144.

⁹ *Bull. de Corr. Hellén.*, xi, p. 109.

¹⁰ *Eleventh Annual Report of the Am. School of Classical Studies at Athens*, p. 40. In the excavations of the present year at Eretria another example was found.

line "took." We read ΑΠΟΛΛΩΝΟΣ. It is perfectly evident, however, from the breadth of the indentation in the clay, that another line ought to be there. But by good luck the workman saw his failure, and planted his stamp again about an inch higher up, this time squarely. The larger portion of the lower line has been spared. Just at the top of the fragment we read:

ΛΛΩΙ
ΜΥΚΑΙΟΙ

Hardly less interesting is a brick from Sparta stamped:

ΠΛΙΝΘΟΙΔΑΜΟCΙΑΙΚΑΝΟ
ΘΗΚΑCΕΠΙΚΑΛΛΙΚΡΑΤΕΟC
ΕΡΓΩΝΑΝΙΚΑCΙΩΝΟC¹¹

A tile was found at Epidaurus with the stamp ΑΝΤΩΝΕΙΝΟΥ.¹² Many of a similar character were found at Megalopolis.¹³

But the largest store has been found at Pergamon. By the kindness of Dr. Wolters I have been allowed to see copies of these from the article of Schuchhardt now in preparation. These contain 112 different stamps, and in some cases there are over 40 impressions from a single stamp.

It is not likely that I have seen all the material which has been found in later years and received casual mention in various periodicals; but enough has been here catalogued to show that certain stamped tiles found in the excavations of the American School at the Argive Heraeum are no isolated phenomenon in Greece.

Of these tiles three fall at once into a class. One fragment yields ΠΧΙΤΕΚΤΩΝ, a second ΤΕΚΤΩΝ, and a third ΞΚΛΗΞΑΡΥ. The letters in all three are of the same form, about a half an inch long, and raised.¹⁴ There is no room for doubt that they are all from a single stamp, and one can easily restore for all the reading:

ΞΚΛΗΞΑΡΧΙΤΕΚΤΩΝ

¹¹ *Mith. des deutsch. Arch. Inst., Athen*, II, p. 441.

¹² KABBADIAS, *Fouilles d'Epidaure*, p. 107, No. 247.

¹³ *Excavations at Megalopolis*, p. 140, and *Jour. of Hell. Studies*, XIII, pp. 332, 336.

¹⁴ Particularly noteworthy are the small α, the Ξ with oblique upper and lower bars, the κ with short oblique bars, and the very long Ε, which makes ΕΚΤΩ ascend like the side of a flight of steps.

By a piece of good fortune, the Central Museum possesses a fragment found by Stamatakis at the Heraeum in 1878, containing $\Lambda\text{H}\Xi\text{APXITEK}\text{T}\sim\text{N}$, evidently stamped with the same die. To remove any lingering doubt as to all these pieces belonging to a series, it may be added that they are all of the same thickness (0.035 m.); that about 0.025 m. from the top (which is the only original edge preserved) a thin stripe is impressed; that the stamp is in each case placed immediately below this line, always on the concave side of the tile, which on this side had a finish not given to the other side; and that the clay in all is rather coarse. After working out this problem, I had my attention called to a whole tile in the Polytechnikon, found by Dr. Schliemann in 1874 in the village of Chonika, about a mile and a half from the Heraeum. Here stands in full:

$\Xi\sim\text{K}\Lambda\text{H}\Xi\text{APXITEK}\text{T}\sim\text{N}$

At the bottom of the tile is another stamp:

$\Delta\text{A}\text{M}\text{O}\text{I}\text{O}\text{I}\text{H}\text{P}\text{A}\Xi$

This is, of course, for $\Delta\mu\acute{o}\sigma\text{ι}\text{o}\text{i}$ "Heras,"¹⁵ and would mark the tiles ($\kappa\acute{\epsilon}\rho\alpha\mu\text{o}\text{i}$ being understood) as the public property of Hera.

On the stamped tile from Sparta, above mentioned, we had $\pi\lambda\acute{\iota}\nu\theta\text{o}\text{i}$ $\delta\alpha\mu\acute{o}\sigma\text{i}\alpha\text{i}$ $\sigma\kappa\alpha\nu\theta\acute{\eta}\kappa\alpha\varsigma$, an exactly parallel case. So on the Peiraeus fragments we have $\text{M}\text{O}\Sigma\text{I}\text{A}\text{P}\text{E}\text{I}\text{P}$ with $\pi\lambda\acute{\iota}\nu\theta\text{o}\varsigma$ probably supplied. The three Tanagra tiles bear $\Xi\text{O}\text{I}\Xi\text{O}\text{M}\text{A}\Delta$.¹⁶ The Tegea tile bears $\Delta\text{A}\text{M}\text{O}\Xi\text{O}\Xi$.¹⁷ A fragment of brick also from Tegea has — $\tau\eta\varsigma$ $\delta\alpha\mu\acute{o}\sigma\text{i}\text{o}\nu$.¹⁸

Another tile, an inch thick and of great concavity, found at the Heraeum, has $\Delta\text{A}\text{M}\text{O}\text{I}\text{O}\text{I}$.¹⁹

¹⁵ In some Argive inscriptions σ between vowels is changed to h , as in [$\Delta\mu\sigma$]ia, ROBERTS, *Introd. to Greek Epigraphy*, No. 79, and Ἐποίρη , No. 81, while in other cases, in the same position, it vanishes altogether. Thus in *CIG.*, i, 1120, Τελάιος is used three times for Τελέσιππος , and Θράυλλος for Θράσυλλος (in COLLITZ und BECHTEL, *Argivische Inschriften*, p. 127, the rough breathing is given to these names). See ARRENS, *De Graecae Linguae Dialectis*, II, p. 78 f.

¹⁶ *Bull. de Corr. Hellén.*, XI, p. 209.

¹⁷ *Mith. des deutsch. Arch. Inst.*, Athen, IV, p. 144.

¹⁸ LE BAS et FOUCART, *Inscr. du Peloponnèse*, p. 341 f.

¹⁹ At Eretria, this year, a small fragment of a tile was found containing apparently ΔHMO EPETPI , but if ΔHMO be the true reading of the somewhat worn letters, H and M are strangely crowded together. The letters really look more like ΔIMO , an interesting iotacism.

This word *δαμοίαι* does not put us in possession of any very definite information, such as that secured by the English excavators at Megalopolis, who identified the Philippeum by stamped tiles.²⁰ The whole precinct was sacred to Hera, and the tiles of any building, or even of a drain-pipe, might have been said to belong to her.

One's first thought is of roof-tiles. But the tile that we have entire in the Polytechnikon is very heavy and coarse. It is 1.10 m. long, 0.51 m. broad at the top, 0.44 m. broad at the bottom, 0.035 thick. The edges are cut off with a slant, making a cross section of this form :



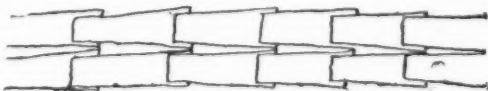
It has been suggested to me that it might be a drain-tile, but so slight is the concavity that it would take at least five such pieces to make a cylinder, and this would be enormously large—a metre and a half or more in diameter. Of course, this might be the case; the tiles, however, would not make joints, but would simply touch one another with sharp edges, thus :



It is not likely that the edges would have been made to fit so poorly if this had been the end for which the tiles were designed. Neither is it likely that tiles like this were intended to go in pairs, making a flat drain (one being imposed upon the other), for in that case the edges would have met thus :



For only one sort of a drain does a tile of this shape seem fit, viz., for an open drain. The lower smaller end of each upper tile would fit into the broader upper end of each lower tile, and make a good drain for a small quantity of water, *e. g.*, the drippings from a roof. But it would be strange if such drains existed in quantity enough to have afforded us almost our only survivals of Heraeum tiles. Furthermore, a system that was fit for an exposed drain was fit to serve as a series of gutter-tiles on a roof (*σωλήνες*). The zigzag edge was perhaps rude, but it could be covered by the *καλυπτήρες*, as may be seen by the annexed cut :



²⁰ *Excavations at Megalopolis*, p. 141.

There is a breadth of only slightly over 0.14 m. to be covered by the *καλυπτήρ*. It would be just 0.14 m. if the turned up edges of the *σωλήνες*, for so we may now call them, were cut off straight and not with a slant. If the *καλυπτήρες* were as thick as the *σωλήνες*, they must have had a superficial breadth of 0.21 m.²¹ Perhaps we may assume 0.25 m. as a maximum. The *σωλήνες* could have at most only 0.30 m. exposed.²²

The actual result was probably a roof divided in its surface about equally between gutter-tiles and covering tiles. The taper of the gutter-tiles affords an easy way of fitting each one into the next lower. Probably the covering tiles were arranged in the same easy way, the narrow upper end being overlapped by the broad end of the next covering tile. Perhaps this may not have made so dainty a roof as those of buildings with marble tiles, with their delicate *καλυπτήρες*, or as that of the Treasury of Gela at Olympia with its more carefully matched clay tiles. But that it is a probable and natural arrangement is shown by the fact that tiles are now adjusted in the same way. The only difference is that they are made much smaller. The tile in the Polytechnikon must be twenty or thirty times as heavy as those now in common use on the roofs in Athens. They were large-enough to be held in position by their own weight, without mortar, even in spite of considerable wind, thus making a roof comparable to those made of flat stones, so common in the valleys of Northern Italy, where fierce winds sweep down over the passes.

These tiles might be taken as quite old and primitive were it not for the stamp, which forbids such a thought. This even forbids putting them so far back as the erection of the new temple of Hera, which was probably begun soon after the destruction of the older temple in 423 B. C., and completed before 400 B. C., to say nothing of the fact that Pausanias mentions Eupolemus as the architect of that temple. The West Building, also, if the signs of its age have been correctly estimated by the visiting architects, could not have borne these tiles on its *first* roof. Its massive character, however, and the short span of its roof would make it a very proper building to carry such heavy tiles.

²¹ The computation would be as follows: the taper of the *σωλήν* (0.07) plus twice the thickness of its edge (0.14).

²² The computation would be as follows: $0.44 - (0.035 \times 2 + 0.035 \times 2) = 0.30$.

Not to be too exact about the forms of letters on a *stamp*, and that, too, outside of Attica, where we are always uncertain as to dates of certain forms, we may yet say with considerable safety that the stamp cannot be earlier than the fourth century. The small *omega* would seem to make it venturesome even to put it into that century at all. But against any very late date may be arrayed the following considerations:

1. A has a straight crossbar.
2. Ξ has its upper and lower branches very divergent.
3. There is no attempt at ornamentation.

The place of finding of the fragments seems to give no clue as to the building on which they were used, for in only one case have we any record of that item: one was found at the east end of the Stoa above the new temple. But they may have belonged to some building made several centuries after the temple of Hera.

We must be on our guard. The stamp-maker may have indulged in an affected archaism. The irregularity of the ending ΕΚΤΩΝ may be due to that. On the Amyclae stamp there is no sign of a later date than 300 B. C., other than a very late form of the *omega* (ω). As for Ξ with divergent upper and lower bars, it is found on bricks made perchance a year ago at Chalkis.

As to the name *Sokles*, a *Koseform* for *Sosikles*, it is common enough, and affords no particular interest. But the meaning of *ἀρχιτέκτων* is an interesting question. The word seems, judging from its use in numerous inscriptions, to have the definite meaning of "supervising architect," holding office sometimes for the erection of a certain building, as in the case of the temple of Asclepius at Epidaurus, or for a term during which he would supervise all building and repairs, as at Delos. His office is well described by Fabricius (*Hermes*, xvii, p. 17), and by Homolle (*Bull. de Corr. Hellén.*, xiv, pp. 477 ff.), who remarks: *Dans un grand Sanctuaire comme celui de Delos, où les réparations, à défaut même de travaux neufs, exigeaient continuellement la surveillance et la capacité d'un homme de métier, on ne pouvait se passer d'un architecte. L'habitude d'attacher d'une façon permanente un architecte aux temples était assez répandue dans le monde grec.*

In CIA., I, 322, *Philokles* is mentioned as an *ἀρχιτέκτων*, who with a *γραμματεὺς* belonged to a board of *ἐπιστάται τοῦ νεοῦ τοῦ ἐν πόλει, ἐν ᾧ τὸ ἀρχαῖον ἄγαλμα*, supposed to be the Erech-

theum. In *CIA.*, I, 324, a year later probably, for work on the same building an *ἀρχιτέκτων* named Archilochus received 37 drachmas for one prytany and 36 for another. This is pretty clearly a drachma a day. According to the same account, men who worked on columns got as high wages as 20 or even 22 drachmas a prytany. In *CIA.*, I, 60, *ἀρχιτέκτων* and *ἀρχιτέκτονες* are frequently mentioned in connection with what is supposed to be the same work as that above mentioned. In an inscription from Delos, published by Homolle,²³ a certain Philistides receives a payment of one drachma a day. Homolle supposes him to have been the *architekton* who supervised all the buildings at the time on the island of Delos. At any rate, it appears that nothing was done in great building enterprises without the consent and advice of the *architekton*. *κελεύει ἀρχιτέκτων* is a phrase of very common occurrence in building-inscriptions; it occurs 34 times in the accounts of the *hieropoioi* of the temple of Apollo at Delos, edited by Homolle in *Bull. de Corr. Hellén.*, VI, pp. 6 ff. The *hieropoioi* make payments at the order of the *ἀρχιτέκτονος καὶ τῶν ἐπιμελητῶν*, *ibid.* pp. 7, 8. In the Eleusinian inscription published by Foucart, *Bull. de Corr. Hellén.*, IV, 226 ff., we read *ὅπου ἂν δοκῇ τοῖς ἱεροποιοῖς καὶ τῷ ἀρχιτέκτονι*. In the great building-inscription of Lebadea (*Insc. Graec. Sept.* 3073, line 160), we see that a completed piece of work is submitted to the *ἀρχιτέκτων*, while minutiae like the separate joints are attended to by a *ὑπαρχιτέκτων*.²⁴

In an inscription from Epidaurus²⁵ mention is repeatedly made of an *architekton* Theodotos, who served for a period of over six years at a salary of a drachma a day.²⁶ But the salary of an *ἀρχιτέκτων* was not uniformly a drachma a day.²⁷ In the year 279 B. C., at Delos, he received two drachmas a day; but at the same time certain workmen, *Nikon* and his son, get the same amount for working on a column.²⁸ At Eleusis, in the time of Ly-

²³ *Bull. de Corr. Hellén.*, VIII, p. 305 ff.

²⁴ Cf. line 53: *ἀρεστῶς τοῖς ἱεροποιοῖς καὶ τῷ ἀρχιτέκτονι* (it was easy for Dittenberger to restore in No. 3075 [*καθὼς ἂν κελεύῃ ὁ ἀρχιτέκτων*]). Cf., also, *CIG.*, 2266, line 19: *ἐπειδὴν δὲ συντελεσθῇ τὸ ἔργον, ἐπαγγειλάτω ὁ ἐργῶνς τοῖς ἐπιστάταις καὶ τῷ ἀρχιτέκτονι*.

²⁵ KABBADIAS, *Fouilles d' Epidaure*, p. 78, Inscr. No. 145.

²⁶ His payment for one year is 350 drachmas; for another it is 353 drachmas.

²⁷ See the list given by Homolle in *Bull. de Corr. Hellén.*, XIV, p. 478.

curgus, an ἀρχιτέκτων received 72 drachmas for one prytany, or two drachmas a day,²⁹ while an *epistates* of seven men received only ten drachmas for the same time.³⁰

The ἀρχιτέκτων ἐπὶ τὰ ἱερὰ at Athens,³¹ and the ἀρχιτέκτων who had so much to do with the theatre of Dionysus, were undoubtedly supervising architects, whatever other functions went along with that office. The four persons mentioned in *CIA.*, II, 194, col. c, as ἀρχιτέκτονες, are similarly engaged, although their work is at the Peiraeus in connection with the ships.

Two things come out reasonably clearly from this list of inscriptions:

1. When a man is called an ἀρχιτέκτων, as *Sokles* here is, he cannot be considered to be the head of a tile factory.³² In that case he would probably have been called κεραμεύς. *Sokles* was doubtless the supervising architect for some particular building or for some one or more years.

2. The other result may seem surprising; but it does appear that a man who undertook important responsibilities, requiring special knowledge and training, received the small payment of one or two drachmas a day.³³ This may be a good illustration that officials in Greece did not look for great profit. Quite likely, the only reason why the architect at Athens was paid at all, while the board of ἐπιστάται with whom he was associated gave their services free, was that he had to give up *all* his time to the work. Perhaps the payment given to a member of the Boulé during his time of actual service was regarded as a proper standard in paying for this sort of service. Probably the only difference between such an ἀρχιτέκτων as *Sokles* and Ictinus or Libon,³⁴ was that the latter were engaged in more important undertakings.

²⁹ Cf. line 71 of the great inscription published by Homolle in *Bull. de Corr. Hellén.*, XIV, pp. 389 ff.

³⁰ *CIA.*, II, 834^b.

³¹ *Ibid.*, col. II, line 9.

³² *CIA.*, II, 403, line 28.

³³ For the head of a tile factory to style himself ἀρχιτέκτων would probably have seemed more of a wresting of language than when now-a-days a dancing-master assumes the title of professor. FOUCART (in *Bull. de Corr. Hellén.*, VIII, p. 407) understands a brick from Thebes to bear the stamp of the maker's name, adding: *Les marques de ce genre sont encore assez rares en Grèce.*

³⁴ That an architect was a man of some standing might appear from the words of [PLATO], *Anterastae*, p. 135 B: 'Εν τῇ τεκτονικῇ τέκτονα μὲν ἂν πλῆστοι πέντε ἢ ἑξ μνῶν ἄκρον, ἀρχιτέκτονα δὲ οὐδ' ἂν μυρίων δραχμῶν.

³⁵ It is a little strange that PAUSANIAS (V. 103) speaks of Libon as a τέκτων.

A word may here be added as to the practical reason for stamping tiles. *Sokles*, who *may* of course have had his own tile-making establishment, did not wish to have a pile of his tiles stolen or mixed up with similar tiles.³⁵ Perhaps it is not without a bearing on such possible purloining that we read an account of the *hieropoioi* at Delos,³⁶ running thus: "Bought 200 pairs of tiles; put 70 pairs on one building, 44 on another; and turned over to the following *hieropoioi* a remainder of 76." No mention is made of the deficit of ten.

The tiles were probably formed in a wooden mould, like that referred to in an inventory of Delos³⁷ as a *τύπος ξύλινος κεραμίδων*. That in some cases the stamp was affixed by a separate impression might seem probable from the fact that the upper stamp with *Sokles'* name was not exactly uniform with reference to the stripe above it. But this may also be accounted for by supposing the metallic stamp, which made the letters so clearly cut, to have been a little loosened from the wood of the mould in some cases. I saw some moulds at a brick manufactory in Eleusis, the other day, in just that condition.

The other stamped fragments found at the Heraeum during the first two years of excavation are so small that it is difficult to tell whether they are tiles or plaques. On one from the so-called West Building, 0.12×0.07 m., roughly estimated, we have:

ΕΠΙΝΙΚΟ /

A

After A what looks like P follows, but this is uncertain. The rest of the lower line is worn away. Coming to this from the pieces just discussed, one would be predisposed to read *Ἐπίνικος ἀρχιτέκτων*, but it is quite as likely that *ἐπί* is a preposition followed by a genitive, as in so many of the Corfu stamps containing the names of prytans (Riemann, *Les Isles Ioniennes*, pp. 47, 54), or in the numerous stamps on amphora-handles collected by Dumont in *Insc. Céramiques de la Grèce*. The word following the

³⁵ The stamp with *Sokles'* name, being on the upper end, would disappear when the tile was laid, even if it were a gutter-tile.

³⁶ *Bull. de Corr. Hellén.*, vi, p. 136.

³⁷ *Bull. de Corr. Hellén.*, vi, pp. 29 ff.

name may be *ἄρχοντας*, for aught we know. Another fragment still smaller, 0.09×0.07 m., has a name clearly in the genitive. To the left we read:

ΥΟΛΙ

Λ'

It is evident that the top line runs from right to left, and we probably have a name ending in *λου*. If the next line turns back in a Boustrophedon order, we may here have *ἐπὶ* — *λου* *ἄρχοντας* or *ἀρχιτέκτωνος*. Such a turning back of the second line is seen in one of the Megalopolis tiles.³⁸ In our inscription, as in that one, ΔΥΟ is also possible, since the mark at the edge of the fragment, after the supposed A, looks oblique, and may be a part of a Υ. The reading of the name from right to left has many parallels in stamps. A Megalopolis tile³⁹ has the name *Φιλίπποῖμην* read this way. The three tiles from Tanagra read in the same way,⁴⁰ as well as one of the three tiles from Chios before mentioned. The maker of the stamp in these cases preferred to cut his letters running in the usual order, regardless of the hundreds of impressions which would thus read reversed.

We are sure that in some cases the stamps were not cut as a whole, but were made up of movable letters.⁴¹ On an amphora-handle from the Peiraeus,⁴² the reading is from right to left; but the letters Ξ, Ρ and Κ are left turned the other way. In turning his letters the workman forgot to arrange them so as to make the direction of the word and of the letter consistent.

A series of four tile fragments was found on the south slope below the Heraeum just at the close of the last year's work (spring 1894). These contain:

1. ΕΠΙΠΟΛΥΓΝ
2. ΕΠΙΠΟ
3. ΕΓ
4. V ω

They are all impressed on the concave side of fragments about

³⁸ *Jour. of Hell. Studies*, XIII, p. 336, No. 1.

³⁹ *Ibid.*

⁴⁰ *Bull. de Corr. Hellén.*, XI, p. 209.

⁴¹ BLÜMNER, *Technologie und Terminologie*, II, p. 32; and DUMONT, *Inscr. Céram.*, pp. 395, 396, 398, where are cuts illustrating the making up of these stamps, in some of which letters are misplaced.

⁴² *Bull. de Corr. Hellén.*, XI, p. 207.

an inch thick. The letters are not raised, as in the other fragments here catalogued, but depressed. The fact that in No. 1 € is so close to the Π as not to allow room for the cross-bar of the latter to extend so far to the left as in Nos. 2 and 3, points to a slight difference in the moulds, possibly due to the use of movable letters. The date of this stamp is evidently very late. Whether Polygnotus was an architect or a sacred official for the year is not known.

At the same time and place was found a small fragment with very large letters (about an inch long) furnishing the beginning of two lines:

Ε Π
Μ Α

and a still smaller piece of the upper right-hand corner of a tile with ξ next to the preserved edge. This ξ is exactly like those in the *Sokles* stamps, and the piece agrees in thickness; but this cannot belong to that series unless the *Δαμοίσι* "Ηρας was transferred to the top. There are also two stamps from late Roman times found in the second year's work, one on a piece of tile so small that it affords only ΚΛΟΙΕΕ (the letters are perfectly plain). The second one is broken a little at the right-hand lower corner, and the raised letters are badly worn in the middle of the second line, but it looks as if it were not going to be difficult to read. It runs from right to left, thus:

VOIΔVAΛX
ΔΘ 3303ΛX
ΑΛΘ3VOI

Hopefully as the first line and the first half of the second look, affording Κλαυδίου Κλεοσθ ---, we must leave the rest unsolved.

Besides the stamps here described, there were several letters, apparently scratched into some of the tiles when these were moist. But they furnish no words. Perhaps they were builders' marks, or marks to designate property.

RUFUS B. RICHARDSON.

American School, Athens,
July, 1894.

SOME INSCRIPTIONS FROM THE ARGIVE HERAEUM.

The inscriptions here published were found in the spring of 1893. They are none of them older than the second period in the Argive inscriptions, which is especially characterized by the three-stroke sigma (ς) and by the dotted omicron (\odot) (cf. Kirchhoff, *Studien*⁴ p. 98; Roberts, *Grk. Epig.*, pp. 108, 117). Several are considerably later than the date of the introduction of the Ionic alphabet, which probably took place in Argos, as elsewhere, about the close of the Peloponnesian War (cf. Kirchhoff, *o. c.*, p. 100). The fragment XI, indeed, can scarcely be earlier than Roman times, and No. XII, which will be published later as an addendum to the present series, is very likely of much the same date.

I.

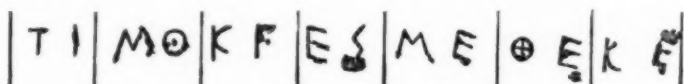
Inscribed on a small Doric capital and on a portion of its column found in the West Building (cf. Waldstein, *Twelfth Annual Report* of the Am. School, p. 34), near the third base of the inner row of columns, counting from the south (excavator's note). Now in the guard's hut at the site of the excavations. Diameter of column, 1 ft.; height of echinus, 4 in.; width of abacus, 1 ft. 9 in.; height of abacus, 4 in.; height of letters, about .8 in.

(a) is inscribed on the abacus and is difficult to read, owing to the damaged state of the surface of the stone. Professor Tarbell was the first to read line 1, but the defective squeeze which he used did not show the letters in line 2. It is possible, but not certain, that the letters T \odot N should be read before Π in line 2.

ΕΛΛΗΝΕΣ
ΑΙΤΕΡΕΣ

(a) ἐν Νε]μέᾳ Τεγέα τε υ—υυ —υυ — —
... Πέλλαν[α ...

(b) is inscribed on the column, there being two letters in each flute, as is shown in the facsimile. The uneven stretching of the squeeze has caused the lines to appear not quite equi-distant from one another.



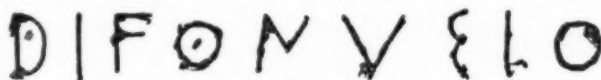
(b)

Τιμοκλῆς μ' ἔθηκε

(a) shows clearly that the inscription is the dedication of some object by a victor in various games (*cf.* Furtwängler, *Mittheil. Athen.*, v, pp. 30 and 31, note 2). Similar inscriptions are quoted by Pausanias in his account of Olympia, and the excavations there have yielded some of the same class (*cf.* *Archäologische Zeitung*, 1876-1878). The following numbers from the Anthology may also be cited for comparison: XIII. 5, 8, 14, 15, 16, 18, 19. XVI. (Planudea), 23, 24. Vol. III, (Firmin-Didot), i. 23, 24, 30, 44, 50, 82, 89, 102, 106, 291. *Addenda* to Vol. III, i. 86 b.

II.

Inscribed on a stone built into the wall of one of the dwellings (?) which adjoin the stoa marked C on the map (*cf.* *Am. Journal of Arch.*, VIII, pl. XII, and Waldstein's *Report*, pp. 31, 32). The wall is not of the best construction, and the inscribed stone was undoubtedly brought from elsewhere and built in at a date later than that of the cutting of the inscription. The dimensions of the stone, which has apparently been cut down to fit into its present position, are 2 ft. 11.5 in. by 1 ft. 11.5 in., and the upper line of the letters is 3.5 in. below the top of the stone. The height of the letters is about 3 in. The upper left-hand corner of the stone is broken off. The inscription is very clearly cut. The apparent dot in the first O is almost certainly only a break in the surface of the stone. The form of *sigma* is noteworthy in an Argive inscription.



Διφονσίου

Possibly this may be a patronymic genitive in a dedicatory inscription.

III.

Found just to the south of the West Building among some architectural fragments. The inscribed stone is of irregular shape, but the measurements may be roughly given as 11 in. by 5 in. The height of the letters is about 1.2 in. The dot in the O is not entirely certain. The stone is in the museum at Argos.

. . . ο (or ω)ν ἀν[έθηκε(?)]

IV.

Found in the same place as III. Inscribed on an irregularly broken fragment 1 ft. by 8 in. in size. The height of the letters is about .5 in. In the museum at Argos.

Κόρινθος

Λυκίνος

ἰ] αρομνάμ[oves



Possibly the stone formed the upper part of a stele.





V.

Found between the bases of the inner row of columns in Stoa C and on a level with them, at a point about one-third of the length of the stoa, measured from the west end. The inscription is on a marble block measuring 10 in. by 10 in. by 3.6 in. The letters are about .7 in. in height. There is a round hole in the top of the block 1.6 in. in diameter. Of the name of the first dedicator only a single upright bar of one letter is preserved. The stone is in the Central Museum at Athens.

Η υ β ρ ί λ α ς
ἀνέθεταν

The name *Hybrilas* does not occur elsewhere, though *Hybrillos* and *Hybrilides* exist. On the suffix -λας see Fick, *Griech. Personennamen*, p. 123, and Pape-Benseler, *Lcx.*, p. xxx.

The really important feature in this inscription is the form  = B. With the exception of a bronze plaque said to be from Hermione, but apparently of doubtful provenience, the Argive inscriptions of early date give but one example of the letter B. This occurs in the proper name Βορθαγόρας, which with others is inscribed on a stone that is built into the foundation of the eastern tower of the ruined castle on the Larisa at Argos (cf. *IAG.* 30 = *Dialekt-Inschriften* 3260 = Roberts, *Grk. Epig.*, 73). Here our copies give the form . But, in the light of the new form for this letter, the stone needs to be carefully examined, since, owing to the worn condition of its surface, an error might easily be possible.

The plaque from Hermione has been published by Fröhner in the *Revue Archéologique* for 1891, II, pp. 50 ff., and, with extended comment, by Robert in the *Monumenti Antichi*, 1891, pp. 593 ff. B occurs twice (lines 2, 6) in the word  ●  A. It should be observed that the upper lateral stroke is not at right angles with the vertical stroke, as is the case with the example from the Heraeum. There is, however, no essential difference in the forms. If the bronze plaque is not Argive, but represents a form of the alphabet in use at Hermione, we must suppose, as Fröhner has pointed out, that there existed there almost simultaneously two forms of the early alphabet, that of Argos (note the letter  on the bronze plaque), and a form closely allied to the Lacedaemonian (cf. Roberts, p. 284, and Kirchhoff, *Studien*⁴ p. 160). It is more probable that the plaque is of immediate Argive origin, and this view, to which both Fröhner and Robert incline, is now shown to be almost certainly the correct one by the inscription from the Heraeum. The resemblance of this form of *beta* to that of the letter in several of the insular alphabets (C), and in the alphabet of Megara () has been remarked by Robert, *l. c.*

VI.

Inscribed on a white fine-grained limestone, which splits with conchoidal fracture. Found in Stoa C, between the back wall

and the inner row of columns (Washington's note). Six irregularly broken fragments of the stone have been found, five of which may readily be fitted together. These measure roughly 1 ft. by 8 in., the sixth fragment 3 in. by 1 in. The height of the letters is 0.4 in. The inscription is in the Central Museum at Athens.

(a) Fragments 1-5.



... ον

... ριτον

... τα: ΡΡΡΡΡ

... ωναυων: ΡΡΡΡΡ

... ιμετρον: Η: τιμά: ΡΟΟΟΟ

... τρος

... αδ ...

(b) Fragment 6.

... ανκ ...

The inscription is extremely well cut, and the surface of the stone in excellent condition, so that the failure to discover more fragments is peculiarly to be regretted. It seems to have been an account of moneys paid out possibly for building materials. We might restore ξύλων αὔων in line 4, but the inscription is so broken away at the left that conjectural restorations are not worth much. One Argive inscription gives $H = 100$, $\Gamma = 50$, $\Theta = 10$, cf. Reinach, *Traité d'Épigraphie grecque*, p. 218; Dittenberger, *Hermes*, VII, p. 62 ff., comments on the inscription, which is also published as No. 3286 in the *Dialekt-Inscr.*; Larfeld in Müller's *Handbuch*, I², pp. 541 ff. Perhaps, however, $\Theta = \text{omicron}$, as

in other portions of the inscription, and signifies an obol. But how are we to read Π? If it means five or fifty drachmas in line 5, its repetition up to five places would surely be most unusual. Professor F. D. Allen has suggested to me that it may be used to designate a coin of given value (*cf.* Reinach, *Traité*, p. 217, and note 3). Professor Allen has also suggested the reading ὠνὰ ὑὼν in line 4, thus connecting the inscription with the purchase of sacrificial animals. Compare the sacrificial calendar from Cos, *JHS* ix, pp. 323 ff., published also in Paton's *Corpus of Coan Inscriptions*. Line 5, however, seems to me rather to suggest the purchase of building materials. We might perhaps imagine in line 5 something that had a περίμετρον (δίμετρον or τρίμετρον seems difficult, since it involves the use of μέτρον as a linear unit) of 100, and in line 3 the ... τα might belong to some such expression as ποῖ τὰ διαστύλων θυρώμα-τα (*cf.* lines 63-64 of the Epidaurian temple-inscription).

VII.

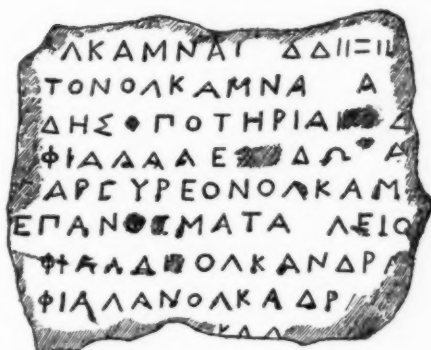
Inscribed on a much broken block of stone measuring 2 ft. 3 in. by 2 ft. by 1 ft. 3 in. (height). Found on the upper terrace just south of the remains of the earlier temple. The stone still remains near the spot where it was found.

ΑΙΙΑΜΙ
Ἀρτάμι

For the form see Foucart in Le Bas, *Explicat.*, No. 109a. The inscription there published reads Πρωτίων Ἀρτάμι, and is now in the museum at Argos. Foucart compares the forms Σαράπι, Ἴσι, Ἀνούβι (*cf.* *Mittheil.*, iv, p. 148, No. 508; *Dialekt-Inscr.*, 3283).

VIII.

The spot where this inscription was found is not definitely indicated in the excavators' notes. It is described as having come to light "on the surface of the south side." The stone measures 5 in. by 6 in., and is broken on all sides. The letters are not deeply cut and the squeeze is difficult to read. The height of the letters is about .3 in. The stone is in the museum at Argos.



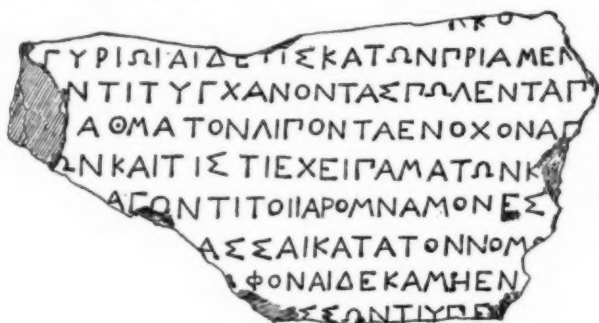
ὁ]λκὰ μναῖ ΔΔ||=||
 ... τον ὀλκὰ μναῖ α ...
 ... δης ποτήρια κ (?) . δ ...
 φιάλα λε[ία] δω . α ...
 ἀργύρεον ὀλκὰ μ[ναῖ] (?)
 ἐπανθήματα λεῖο .
 φιάλαν ὀλκὰν δρα[χμαί] (?)
 φιάλαν ὀλκὰ δρα[χμαί] (?)
 ὀλ]κὰ δ[ραχμαί] (?)

The fragment is evidently part of an inventory of valuable objects which were stored in the temple or in some other building of the sanctuary. In line 1 the value of some object seems to be 22 minae, and perhaps 20 drachmas 2 obols; that is, if we may understand — = 10 dr. and | = 1 obol, as in the inscription which relates to the construction of the temple of Asclepius at Epidaurus. Lines 7 and 8, however, show that the word drachma was given in full, at any rate in the case of lesser values. The space preceding the A which stands at the end of line 2 shows no trace of any letter. It would seem, then, as if the value indicated were a single mina, unless A may possibly be taken as a numeral. It is so used apparently in line 106 of the architectural inscription of the temple at Epidaurus already referred to; but, so far as I know, the letter has never been interpreted there, and it is of no help in understanding the present inscription. The A rather suggests *ἀνέθηκε* or *ἀνάθεμα* in this place (cf. the records of the temple of Apollo at Delos *passim*, Dittenberger, *Sylloge*, 367). The termination -δης looks like the ending of a dedicator's name, but unfortunately there is no means of determining how much has been broken off at the beginning or ending of the lines. In line 3 we should expect a word expressing an attribute of ποτήρια (e. g., κέδρινα, which, however, is hardly possible), but I can make no suggestion that is worth anything. In line 4, after λεία, the beginnings of a proper name seem possible. In line 6 the compound ἐπανθήματα is, so far as I know, new, if we are to take it as signifying dedicated offerings.

The use of the accusative *φιάλαν* in lines 6 and 7 has a parallel in lines 68 ff. of the records of the temple at Delos.

IX.

An irregular fragment, broken on all sides, measuring 1 ft. by 6 in. Height of letters about .4 in. The stone is in the museum at Argos. No note as to the exact spot where this inscription was found has been given me.



... νκο ...
 ἀρ]γυρίῳ· αἱ δὲ τίς κα τῶν πριαμέν[ων
 ... ντι τυγχάνοντας πωλὲν τὰ π ...
 στ]αθμὰ τὸν λιπόντα ἔνοχον ἀπ[οτίσαι
 ... ων καὶ τίς τι ἔχει παμάτων κ ...
 ἄγωντι τοὶ ἱερομνήμενες
 δίκ]ασσαι κατὰ τὸν νόμο[ν ο ...
 ἀδε]λφόν· αἱ δὲ κα μὴ ἐν ...
 δικά]σσωντι ὑπὲ[ρ]

Enough is left of this document to make the conjecture probable that it is a portion of a record of certain specifications touching the sale or lease of some piece of property. Line 6 suggests that we may have to do with an Amphictyonic decree not unlike that published in *CIG.* 1688 = *CIA.* II, I. 545. The restoration *δίκασσαι*, in line 7, was suggested by Professor F. D. Allen. That in line 9 seems to follow from it. Noteworthy is the uncommon word *παμάτων* in line 5. We have *τὰππάματα* (*τὰ ἐππάματα*) in

Dialekt-Inscrift., 488, lines 163-175. Compare ἔππασις (Index to *Dialekt-Inscrift.*, Boötien), and the interesting compound παματοφαγείσται (*IAG.* 321, lines 42, 45 = *Dialekt-Inscrift.*, 1478), also the Homeric πολυπάμων and Hesychius's ἐμπάμων. The simple word πᾶμα has a rare literary use. (See the Thesaurus, s. v.)

X.

Inscribed on an irregularly broken fragment found just above the eastern wall of the West Building. The stone measures about 1 ft. 5 in. in height, 1 ft. 1 in. in width at the widest part, and 7 in. in thickness. The top, which is roughly hewn, has two small holes in it, 2 in. by 2 in., and 1 in. in depth. Except at the top the stone is broken off on all sides. It is in the guard's hut at the Heraeum. The letters are from .6 to .8 in. in height.



... α Φιλιστίδα

... ο(?) κόσμος ο(ορ ω) ...

το]ῦ ἔτεος α ...

τ]ῆς Φιλισ[τίδος

ἀδ]ελφός

... αἰ ἐπ(?) ...

... ε(?) ...

The small holes make one think of a dedicatory offering by Philistis or her brother, but it is useless to speculate in detail about the inscription.

XI.

Inscribed on a very much broken fragment measuring roughly 9 in. by 5.4 in. The letters are about .9 in. in height. The stone is in the museum at Argos. In line 2 the fourth letter is very likely, though not quite certainly, *theta*; and indeed the

second letter of the line, so far as form goes, might be the same.
In line 4 perhaps we should read *ιτα* instead of *πα*.



J. R. WHEELER.

SOME HITTITE SEALS.

[PLATE XV.]

The seals to which I wish now to call attention, and which have never been published, are two cylinders and five circular seals containing Hittite inscriptions. They formed a part of my own collection, but have been transferred, since this paper was prepared, to the Metropolitan Museum in New York.¹

The first of these cylinders (Pl. XV, Fig. 1) is of copper, plated with silver, and is said to have been brought with a number of other antiquities from Haifa, in Syria. I am indebted to Professor Ogden N. Rood, of Columbia College, for the determination of the material; and he informs me that it is to the fact that it is thus composed of two layers of metal, silver on copper, that we are indebted for the excellent preservation of the outer silver face, the galvanic action having preserved the silver at the expense of the copper. It was made of a flat rectangular piece of metal, bent around so as to bring the opposite edges in juxtaposition, thus forming a cylinder; but these edges are not soldered together. The cylinder is 21 millimetres in length by 9 millimetres in diameter. At each end is a rope-pattern enclosed in border lines. Between them, occupying the body of the cylinder, is seen a personage with what appear to be wings from his head; but more probably the wings belong to a winged solar disk over his head, the central disk having been reduced to a mere dot, from lack of room. The head is bare or with a close cap. He wears a long, loose, open robe, and holds one hand extended, and

¹ I may say that the collection of Oriental seals, chiefly cylinders, belonging to the Metropolitan Museum now equals in number that of any public museum in Europe, and is exceeded in value only by the magnificent collection of the British Museum. It is hoped that the Metropolitan Museum will soon publish not only a hand-book but an illustrated catalogue with copies of all the seals photographically reproduced and classified, thus carrying on the work done in this department by M. Menant in his catalogue of the great private collection of M. de Clercq.

in the other holds what appears like a sort of *lituus*, with the lower end bent back and up, as is common in Hittite sculpture. Facing this personage, but separated by two columns of Hittite hieroglyphics, is a figure in a close cap and a short robe, with one hand lifted and the other holding a mace over his shoulder, the top of which is a circle divided in the middle by the handle of the mace. Back to the latter, and with a star between them, is a figure in a high Phrygian hat, a long robe, and with both hands extended in front. The toes of the figures are generally tipped up. Behind the principal figure, surmounted by the winged disk, are a bird, a triangle, and a second small mark beside it—perhaps another triangle. In front of him are the two vertical lines of inscription, three Hittite characters in each column, unless one of these, over the hand of the person or deity, be an object held in his hand. One of the characters reminds us much of the Babylonian character for Harran, and suggests that it may be the ideograph for that city.

While I do not think it worth while to try to translate or transliterate the inscription, the two lines in front and the one behind the principal figure, still, the presence of the characters distinctly defines the Hittite style of a considerable family of cylinders which, for other reasons, we have been in the habit of calling Hittite. Most characteristic of all is the rope-pattern. The tall Phrygian cap and the tipped up toes are familiar Hittite characteristics. There is a considerable body of hematite cylinders of about this size and type which these written characters help us to designate more positively as Hittite, although it has often seemed doubtful whether we should not call them Syrian or Phœnician. Indeed, the Hittites, coming down from the neighborhood of Armenia into Syria, and occupying the whole of Northern Syria from the Euphrates nearly or quite to the coast, entered into a region which had already a well-developed Phœnician or Canaanite culture, and probably bringing at first no indigenous culture with them they adopted the art of the country they had conquered; so that it may never be possible, in Northern Syria, to separate their art from the native Phœnician and Syrian art, whatever independent developments they may have later made in Asia Minor.

The size and shape of this silver cylinder, and of the fine class of hematite cylinders which resemble it, found in Syria, are about the same as in the Babylonian cylinders of about 2000-1500 B. C. This inclines us to date them back to a period of considerable antiquity; especially as about 1500-1400 B. C. a much larger cylinder came into vogue with the Cassite dynasty, and similar large cylinders were in use in Assyria. These small cylinders are characterized by an even more minute and delicate workmanship and a more crowded composition than is found on the corresponding Babylonian cylinders; and, like them, they are wrought free hand with the corundum point, and not with the revolving disk, which probably did not come into general use much, if any, before 1000 B. C.

The other cylinder of which I speak (Pl. XV, Fig. 2) is in much less perfect condition. It is a large cylinder of black serpentine, and was obtained in the neighborhood of Oorfa. It is 53 millimetres in length and 15 millimetres in diameter. Although considerably battered and worn, it is easy not only to make out that there are five lines of Hittite characters covering the surface, but also to recognize many of the several characters. They are arranged in the way usual in Hittite inscriptions, two characters often appearing grouped one over the other. One of the five lines is wrong side up, as compared with the others. Several of the well known Hittite signs can be repeatedly detected; but it is not possible, I think, to recover more than two or three consecutive characters anywhere, so that it is not likely to be of any value as a text.

But it is of considerable value because of its relationship in shape and material to a large class of these large, deeply-cut, soft black serpentine cylinders which I have been in the habit, with others, of calling Assyrian, but with a great deal of doubt whether they are purely Assyrian. These are the cylinders which introduce the winged disk and the sacred tree into Assyrian art, elements unknown to Babylonian art before 1500 B. C.; and which especially delight in the fight between Bel and the Dragon, or other forms of the contest between a hero and a sphinx or other foe. It is evident that in the time of the Assyrian empire the art of the country had somehow acquired these important ele-

ments of mythology not familiar to the early Babylonian empire; and it is not easy to discover evidence of whence they came, much as we might conjecture in certain particulars. Thus it is certain that the winged solar disk must have originally come from Egypt by way of the Egyptian conquests in Palestine and Syria, though considerably altered, and although the winged disk of Aten (Adonis?) was carried back in a new type into Egypt from the Euphrates by the heretic kings.

If, now, as this Hittite cylinder seems to indicate, we can refer these large serpentine cylinders—so peculiar in size, shape and material as well as design, seldom with inscriptions—to the Hittite territory, we are on the line of the connection with Egypt. We well know how close was the connection between the Egyptian and the Hittite kingdoms in the time of the XVIII and XIX dynasties, and we may be certain that it was about this time that Western Asia felt most markedly the influence of Egypt, the influence previously being chiefly Babylonian. I am inclined to think that the winged disk was brought into Asia perhaps somewhat before the time of Thothmes II, and before the Hittite invasion of Syria; that it was adopted first by the Phœnician or Canaanite civilized tribes, then by the people of Nahrina, to whom it became a special and supreme god by a sort of religious revolution which modified considerably the idea and form of the winged disk as it had been known in Egypt; and that it was then adopted by the Hittites on their occupation of the country. When the iconoclastic heretic king Khuen-aten, under the influence of his alliance with Nahrina, made it his sole divinity, its identity with the old and orthodox Egyptian form had been nearly or quite lost. From the Mesopotamian peoples, rather than from the Hittites or directly from the Egyptians, the Assyrians accepted the disk and the sacred tree, and probably the contest between Bel Marduk and the Dragon. These latter were both drawn from the Babylonian mythology, though not from Babylonian art; and we must remember that the Nahrina kingdom is really older than the Assyrian.

This would not make this large cylinder with the Hittite inscription as old as the smaller silver cylinder, and the fine hematite cylinders of which I have spoken. Indeed if, as seems

probable, the larger type was introduced by the Cassite dynasty about the time of King Burnaburiash, then we may put these large serpentine cylinders as early as 1300 or 1200 B. C.; and from these large Mesopotamian or Hittite cylinders were copied the later characteristic large chalcedony cylinders which we are able to refer confidently to Assyria.

With these two cylinders, the first ever found with unquestionable Hittite inscriptions, I would give copies of several disk-shaped seals, engraved on both sides with Hittite characters (Pl. XV, Fig. 3), obtained by me from Constantinople. These seals are similar to those belonging to Schlumberger (*Revue Archéologique*, Dec. 1882), and to the silver seal from Bor (published by Mr. Thomas Tyler in the *Academy* of Jan. 14, 1893), which is now in the Ashmolean Museum, Oxford. They are made of serpentine, both black and red, and are reported to have been brought to Constantinople with some Cappadocian tablets.

WILLIAM HAYES WARD.

NOTES.

HEINRICH VON BRUNN. †

[PLATE XVI.]

The study of classical archaeology has lost one of its brightest lights by the death at Josephsthal, in the Bavarian Alps, July 23, of Professor Heinrich von Brunn, who had latterly come to be looked upon as a sort of dean of the corps of professional archaeologists. For the honorary epithet of *Altmeister*, as he was commonly saluted at home, was not merely a tribute of respect for the surviving contemporary and associate of such old pathfinders in archaeological science as Otfried Müller and Eduard Gerhard; it involved recognition of his continued authority and supremacy in the special form of historical and æsthetic criticism of the concrete remains of antiquity which he made his province. Outside of archaeological circles his name was scarcely known, except to a part of the magazine-reading public of Germany, which had learned to look forward to his occasional brilliant essays in the *Deutsche Rundschau* or in Westermann's *Illustrierte Monatshefte* as thoroughly original discussions in polished literary form, absolutely free from the taint of popularism. They differed, in fact, from the papers he read at philological conventions, or in the sixties before the plenary assemblies of the membership of the international Archaeological Institute at Rome, only as written productions do from oral deliverances. A much larger number of these essays, all models of their kind, deserves republication in collected form, and translation into other languages besides the original Italian or German, than he embraced in the volume of 110 pages octavo entitled *Griechische Götterideale*, issued in 1893 (*Verlagsanstalt für Kunst u. Wissenschaft*, Munich).

Brunn was born at Wörlitz in the principality of Anhalt-Dessau in 1822, and attended college at Zerbst in that neighborhood. In 1839 he matriculated at the Rhenish university of Bonn, attracted thither by the reputation of Welcker and Ritschl. At that time doctors of philosophy were excused from military service, so that after taking his degree in 1843 with a semi-philological, semi-archæological disser-

tation on the sources of Pliny's account of the history of ancient art, young Brunn was free to follow the inclination that drew him Rome-wards. The political upheaval of the Eternal City in 1848-49 converted him for a brief period into a war correspondent. In 1853 his indefatigable ardor in collecting epigraphic material in Southern Italy for the great *Corpus Inscriptionum Latinarum* earned him the friendly nickname of Hercules Saxanus from the editor, Ritschl. He had just completed one volume of the work which established his literary reputation, *Geschichte der griechischen Künstler* (Braunschweig 1853, and Stuttgart 1859; an unaltered reprint of the whole work was issued in 1884). It cannot vie for readableness with the numerous illustrated histories and manuals of ancient art whose authors have used Brunn's work for their foundation. Feeble readers of German will do well to let it alone. The author's plan was to combine a critical presentation of the traditional testimony in regard to the Grecian sculptors, engravers, painters, and architects, with an attempt to make the literary evidence the skeleton of a new *imago artis Græcæ* such as could be conceived in the internal vision of one thoroughly acquainted with antique art in its concrete monuments. But his almost excessively rigid self-control, foreshadowed in the bold wording of a thesis he defended at Bonn in 1843—"In a critical discussion I would rather err methodically than hit upon truth without method"—preserved him from the indulgence in vain rhetoric that renders Adolph Stahr's *Torso*, a work of somewhat similar aim, so nearly worthless. He excluded extant works of antique art from consideration except in the few instances where their authorship is attested with certainty. It was his purpose, but partly completed after an interval of forty years, to supplement this collection of antique testimony by a *Geschichte der griechischen Kunst* (Part I, Munich, 1893). His own formulation expresses his idea in a form enriched by his plastic habit of thought: "As the forms of a living body can only develop to fullness of beauty when they are supported by a flawless osseous structure, although this remains hidden to the eye, so the history of art will mature to real perfection only if the history of the artists supplies it with a foundation, upon which the analysis of the monuments can erect its structure in the consciousness of absolute security."

After an interval of two years spent in the service of the University of Bonn (1854-56), Brunn returned to Rome, to be associated with Henzen, the distinguished epigraphist, in the direction of the Archaeological Institute. Michaëlis, in his history of that scientific station, to which Germany owes so large a share of her present preëminence in classical archaeology, dates the revival of the Institute, after protracted lethargy, from the first meeting conducted by Henzen and Brunn on February 27, 1857: "Not only was there a livelier participation

than during the late years, but it soon rose to a more gratifying activity than ever before" (Michaëlis, p. 14, German ed.). Without this revival of efficiency and interest, its friends could hardly have succeeded, as indeed they did not until 1860, in obtaining rank and support for the Institute as an element in the scholastic establishment of the Prussian Government. The variety and fulness of the archaeological matter published during the next few years in the *Annali* and other papers of the Institute, under Brunn's editorship, indicate his activity as much as his own contributions.

His Roman secretaryship was exchanged in 1865, for the chair of archaeology at the University of Munich, which he filled till yesterday. The opening of his Bavarian career was not altogether auspicious, nor has the visible fruit of his twenty-nine years of activity in Munich as professor, curator, and publicist met the high expectations which could be legitimately conceived then. One of his first duties was the safeguarding from the contemplated Prussian invasion of the collections of antiques which the enthusiasm of King Louis I had created and raised to the second rank in Europe. The ex-king died early in 1868. King Louis II took no personal interest either in the galleries or in the University founded by his grandfather. The development of the natural sciences taxed the educational budget of the kingdom to the utmost; a Royal School of Technology was just founding. Berlin loomed up as the coming German capital. After completing a scholarly catalogue of the sculpture gallery (1868) and another of the antique painted vases, of which he was appointed curator the same year, Brunn found little to do in the way of collection or classification of new antiques. He might almost as well have taught in Göttingen or Königsberg. His prelude to Schliemann's memorable discoveries in the Troad and Argolis (*Die Kunst bei Homer*, Munich, 1868) could have been written anywhere. His publication of the Etruscan sarcophagus-reliefs (*I rilievi delle urne etrusche*, Vol. I, Rome, 1870, since continued by Körte) was the fruit of observations made in Italy. The Bavarian inertia in which he was plunged affected him. He should have gone to Greece. His unfamiliarity with that country tended to put him out of touch with his colleagues of the Berlin directory of the now Imperial German Institute. *Infandum, regina, iubes renovare dolorem* was his answer, in the writer's hearing, to a Greek pupil asking his reason for not visiting Greece. But he hastened to add that he found his rare visits to Italy so disquieting, by the wealth of new impressions they brought, that he feared a journey to Olympia and Athens would dislocate his history of Greek art altogether. Every year he expended an amount of labor on his classroom discussions of the subject which would have sufficed a less sen-

sitive conscience for the publication of a book. Perhaps he did not feel the personal need to write his account of Greek art that he did to sift and classify the testimony which was the basis of his *History of the Greek Artists*. To his mind a properly classified collection of antiques, in the original or in the best available reproductions, was a sufficient history of the evolution of Greek art. His contempt for the sentimentality of Ruskin's opposition to the formation of a great collection of casts in London was unbounded. He arranged his own collection, embracing seven hundred and thirty plaster casts, in a series of chambers extending in one straight line, and bare of any architectural or decorative adjuncts.

Swift to appreciate the scientific utility of the modern processes of photographic reproduction, Brunn recently secured the coöperation of an enterprising publisher, Friedrich Bruckmann, for the issue of a series of six hundred magnificent photographic prints of the most remarkable among the extant store of antique sculptures from widely scattered originals. Of this veritable library museum Bruckmann's business successor, the *Verlagsanstalt für Kunst und Wissenschaft*, is now bringing out the fourth hundred. A similar series of Greek and Roman Portraits was also begun. It is gratifying to be assured that both publications will be carried to completion by Brunn's co-editor, Dr. Paul Arndt. They reflect a degree of credit on the self-sacrificing editors and publishers that should in some measure compensate them for pecuniary loss.

A number of the papers printed in the transactions of the Royal Academy of Munich (*Probleme zur Geschichte der griechischen Vasenmalerei; Paionios und die nordgriechische Kunst; Die Skulpturen von Olympia; Die Skulpturen von Pergamon, etc.*) were openly or covertly controversial. The Olympian marbles, which their Berlin discoverers were at first disposed to associate too closely, though apologetically, with the Attic school of Pheidias, will never recover from the epithet of veal-fed which he applied to their flabby forms by contrast with the beef-fed robustness of a figure like the Theseus of the Parthenon. The strictures which the discoverer of the Pergamene origin of the "Dying Gladiator" of the Capitoline Museum and a series of kindred sculptures in Rome, Naples and Venice, years before the excavation of Pergamon at the expense of the Prussian government, was entitled to pass upon the style of the Pergamene marbles acquired by the Berlin Museum met the same respectful attention. His early identification of a female statue in the Munich Glyptothek as a copy of the allegorical group of Peace and Wealth by Kephisodotos of Athens, the father of Praxiteles, gave him an equal right to speak authoritatively in regard to the place of the Hermes of Olympia

among the known works of the latter master. If Brunn is right, the Hermes was an early work of Praxiteles, done at the time when he was associated with his father in the execution of orders for several Arcadian cities. It is possible that in this view, as in his personal conviction that the original of Praxiteles' "marble faun" is preserved in a mutilated torso of the Louvre Museum, and sundry other contentions of the same sort, Brunn may have erred. His sense of evolutionary relations and his vast knowledge of Hellenic modes of plastic thought raise his own work to the level he assigned to Winckelmann's: his mistakes are more instructive than the right guesses of others. Brunn was rather fond of insisting on his own analytic method as against the deductive and often utterly false conclusions of metaphysical aesthetics, as well as against the excessive reliance of many archaeologists on the comparative process. In truth, his position was the very simple one, that an artistic idea cannot be disintegrated from its material and sensible vehicle, but that, given a sufficient familiarity with the vocabulary, grammar, and rhetoric of the language in which formative art must express itself, it is possible for persistent study to extract from a given work all that the artist consciously or unconsciously put into it. It is this conviction—first acquired and apprehended in its bearing on his life-work while attempting to master the import of the Hera Farnese bust at Naples in 1844—that upheld Professor Brunn for fifty years in his endeavor to substitute scientific investigation of the objective laws governing artistic creation for the flowery allurements of subjective criticism on the one hand, and the restriction of scientific inquiry to the dry bones of archaeological information on the other. And this is what his portrait bust will stand for, which was sculptured by Ruemann from a block of Pentelic marble presented by the Greek government on the occasion of the fiftieth anniversary of his Bonn doctorate (March 20, 1893), and is now set up in the hall of the Palazzo Caffarelli on the Capitoline Mount. The photograph of it (PLATE XVI, taken from *Münchener Porträts*, No. 24, *Verlagsanstalt für Kunst u. Wissenschaft*, Munich) reveals, a little more accentuated perhaps than the writer's recollection of Brunn's real features, the union of the habit of keen observation, leaving its mark especially on the upper half of the full Teutonic face, with other features denoting a strong imagination held in rigid subjection to the will. Were it not for the romantic length of flowing curls in which the face is framed, it could be taken for the head of a statesman rather than of a scholar. It is interesting to compare this portrait in stone with an early likeness of Brunn the student, dated 1841, and representing him in the frogged velvet tunic and loose shirt affected by the patriotic youth of the period. The pure unclouded brow and thought-

ful young features are not without promise of what their owner was to achieve in later years.

This notice would be most incomplete without an allusion to the amiability of character which made Brunn take a special delight in personal intercourse with the young, whose affection he always won, without effort, as surely as he obtained what he used to call their physiognomic response. Many for whose quickened eyes he had read new meaning in the august faces of Greek deities have a pleasant recollection of his own benign countenance, as it beamed through a nimbus of social tobacco smoke, in the weekly reunions around his study-table. In his last illness, as indeed at times before when in less robust condition than usual, this skilful artist in visualization and language showed symptoms of loss of memory and aphasia, due to softening of the brain. The quiescent traveler's instinct revived in him, and he would often declare his intention of spending the night at some forgotten way-station of mail-coach days in Italy, or inform his friends that he had just returned from an extensive journey in pursuit of epigraphic or archaeological information. At last, his powerful frame succumbed without suffering, and allowed a mind that had so long navigated the enchanted seas of the past to weigh anchor and spread sail *eis phâsin, êtha navôn êρχατος ὁρῶμος*: "to that vast shore that skirts the furthest sea."

ALFRED EMERSON.

H. G. LOLLING. †

Classical Archaeology suffered an irreparable loss in the death of Dr. Lolling, which ensued, after a brief illness, on Feb. 22, 1894. His busy life from the age of twenty-four to his death (when he was forty-six years old) had been spent in Greece; and he had become the first authority on the topography of Greece, combining in a remarkable degree the knowledge of its past and its present.

Perhaps not more than one in five of the travellers who use Baedeker's *Greece* realize or even notice that it is principally the work of Lolling. It was in the family of Carl Wilberg (the publisher and bookseller, and at the same time German consul in Athens) that Baedeker in 1876 met Lolling, and recognized in him the man to prepare his projected handbook. Lolling since his arrival in Athens had been serving as private tutor in the Wilberg family, and was devoting his spare hours to a restless study of every nook and corner of Attica.

In the execution of the responsible work laid upon him by Baedeker, he now travelled over the rest of Greece with like thoroughness;

and so full were his results that his manuscript had to be cut down one-half to make it fit the proper proportions of a guide-book. It is well known, however, that Baedeker is no mere traveller's guide, but a proper text-book of the topography, monuments and history of Greece.

Lolling was selected, almost as a matter of course, to prepare the section in Iwan Müller's Handbook of Classical Antiquity treating of Greek geography and topography, the second edition of which he was preparing at the time of his death. But the limits of this work gave him no room for inserting much of the material crowded out of Baedeker. Specimens of this material have, however, reached the light in the *Mittheilungen des deutschen archäologischen Instituts* and in his essay on *Die Meerenge von Salamis*, which begins the volume brought as a tribute to Ernst Curtius, on the occasion of his seventieth birthday in 1884, by his pupils and admirers.

The other main branch of Lolling's work, in which his merits were almost equally conspicuous, was epigraphy. The numbers of the *Mittheilungen* and of the *Delion* bear witness to this. The putting together and editing of the great *Hekatompedon* inscription from the Acropolis was a notable example of his patience, and, we may almost say, his genius in this field. The volume which has appeared of the Inscriptions of Northern Greece, as one sees by "exscripsit Lolling" appended to most of the numbers, was largely the fruit of his labor, and yet his name does not appear on the title page. Probably no man who has ever appeared on the scenes of the archaeological world in Athens has shown less desire to assert his claims to archaeological property, or to push himself to the front in any way. He was retiring and almost shy as far as society was concerned. He never "made calls." Some called him "hermit." But he was very agreeable and genial in the company of his friends.

Of course, such a man did not fail to secure recognition of a public character. His promotion in the German Institute, of which he was for several years librarian and the Director's right-hand man, rendering invaluable service, was perhaps not so rapid as some expected. But this was because Germany sent giants into the field. But the Greek Government seized him in 1887, and made him curator of the Museum of Inscriptions. In 1893 he was made corresponding member of the Prussian Academy, and a few days before his death he was decorated with the Greek Order of the Redeemer.

His last days were extremely busy ones. It was his task to create the museum of inscriptions of which he was to be the curator. He had to arrange and edit the great yield of Acropolis inscriptions from excavations of recent years,—a work which he had nearly completed.

But the general task of keeping up with inscriptions now constantly pouring in is like "climbing up the ever climbing wave." The third edition of Baedeker's *Greece* suffered under no greater disadvantage than that arising from the fact that Lolling was too busy to travel again over Greece, although he did find time to revise the work. By this severe pressure of work a longed-for visit to his Friesland home, after twenty-two years of absence, was also precluded.

And yet no man was more generous and even prodigal of his time when one asked him for information. Often he has left his manuscript to show me inscription after inscription with discursive talk that almost made me forget how busy he was. He had declared his intention of at least going over to Eretria with me in the spring to assist in locating the temple of Artemis Amarysia, a subject in which he was much interested. But before that time came we had laid him to rest in Attic earth.

It was evident that the desire to travel was with him a sort of passion, as with Odysseus, and it cost him much to forego this pleasure. *Man muss sich darcin fügen*, a phrase which he once used to me in speaking of this deprivation, is perhaps an adequate motto to express the substance of his life of patient unselfishness.

RUFUS B. RICHARDSON.

REVIEWS AND NOTICES OF BOOKS.

PAUL KRETSCHMER. *Die Griechischen Vaseninschriften ihrer Sprache nach untersucht.* 8vo, pp. viii, 251. Gütersloh, C. Bertelsmann, 1894.

The work which Meisterhans did some years ago for Attic lapidary inscriptions has now been done by Kretschmer for the corresponding field of inscriptions upon pottery. The subject is naturally of much less importance because of the narrow compass of the material at our disposal, which is confined chiefly to proper names; but a great deal of grammatical interest can be extracted from proper names, and the grammarian cannot now afford to ignore this new field so well exploited for him. Meisterhans confined himself to Attic inscriptions; the smaller compass to be treated by Kretschmer has enabled him to include all inscribed vases, and to add details that are of value to the archaeologist as well as to the grammarian and epigraphist. Beyond the limit of Attic vases, the number of those inscribed is not very large. Only one is reckoned among those of the Rhodian style, the Euphorbos plate of the British Museum, which is now adjudicated from Rhodes and assigned to Argos, with the conclusion that the Camirus style had its origin from the Argive district. It is to be hoped that the excavations of our Athens School at the Heraeum will ultimately solve this question. Of the so-called Cyrenaean class only one is inscribed, and to the Ionian no more than two or three can be assigned with any confidence. Of Corinthian, on the other hand, Kretschmer catalogues 45, of Chalcidian 12, Boeotian 4, Ceian (?) 1, and one of Sicynian manufacture, with a second made in Athens but bearing a Sicynian inscription scratched in by the owner, who was under the influence, our author thinks, of his Athenian habitat, as betrayed by the added ν of $\epsilon\delta\omega\kappa\epsilon\nu$.

In general the inscriptions used in this volume are chiefly those which were painted on by the potters before the last burning. Such as have been inscribed with a point are utilized only so far as the evidence goes to show that they have originated from the potters themselves, and not from the later possessors. The object of this exclusion is to base the results of the work purely upon the language of a single class, the potters and painters, that it may represent the speech of the people undefiled by official phraseology or literary rules. Thus our author claims that we come here into closer touch with the Athenian

workman in his blouse with his paintbrush in his hand (as we see him upon one of the vases) than even in Aristophanes or on the marbles. Kretschmer assumes that these men in general wrote as they spoke, and that the peculiarities in speech exhibited by them may be accepted as the folk-speech, although they have been usually attributed to the ignorance, the mistakes, and the carelessness of the potters. But he maintains that, where the same distinctive forms occur again and again, this reason is not sufficient, especially as they are met with in cases where the writing has been done with great care and beauty, and thus forms a part of the ornament of the vase as a whole, and they occur also at times in lapidary inscriptions: and he utters the warning that hypercriticism is as unscientific as lack of criticism, and quite as unfruitful. Hence, after obvious instances of carelessness and miswriting have been excluded, and some left to one side as admitting of doubt, our author claims that his material performs for the speech of the lower classes in Athens the service which the papyri of the Serapeum have done for the popular speech of the Ptolemaic Greeks. This differs from that of literature and official documents not so much in broad traits as in numberless little things. Here only can we learn that the common Athenian habitually said *δολυττεύς*, occasionally *θησίς* and *παῖς* (*παῖς*), *πίε* (*πίε*).

It is pretty clear that the potter was but half versed in the rules of literary writing, although his social position cannot have been always a subordinate one. The wealth acquired in the art is attested by the offerings on the Acropolis, and by the immense numbers of the wares discovered in foreign countries, especially Italy. The rich Hyperbolus is an example of a potter whose language was open to comic criticism, and he was even taunted with foreign extraction. This charge cannot be brought against a very considerable part of the potters whose signatures appear on vases, as their names are either such as are known to be genuinely Attic, or bear at least no traces of a foreign stamp, as Aeschines, Andocides, etc. There are others, however, with a distinctly foreign color, as Gauris, Douris, Myspius, Oltos, etc. Phintias betrays a Sicilian or Italian origin, though he has once written his name in its proper Attic form, Philtias. Amasis indicates a knowledge of Egypt on the part of the name-giver, if not Egyptian derivation. Brygos was probably Thracian, Sikanos and Sikelos of Sicilian birth. Hence this class belonged either to the *mætics* or to the slave population. It is not surprising, therefore, that unattic forms are occasionally met with. These are chiefly Dorian; the Ionic are almost wholly lacking on Attic vases. The former occur especially in mythic names, as *Οἰδιπόδας*, and such as may be found in the lyric parts of tragedy. The Ionising tendency of tragedy may be seen in a few cases of *σσ* for *ττ*, as *Ὀλυσσεις*, *Φερρέφασσα*, *Κίσσος*, *Κισσώ*. Here may be added the single form

τίραπα noted by Meisterhans. It appears, however, on a vase of Exekias, whose Atticism is otherwise under suspicion from his use of the unattic form *Ἰόλαος*. Doric endings in the names of persons, as Nikondas, are not uncommon in literary Attic. Side by side with the two cases of *F* in Attic inscriptions is to be ranged the form *EIOLEOS* for *FIOLEOS* on a black-figured vase of the British Museum, otherwise pure Attic.

As occasionally on the marbles, *H* is found for the aspirated *E*-sound, five times for *ι*, five times for *η* on Attic vases, and once on a Corinthian. Some cases of the Argive *lambda* (*λ*) also occur, but they may be accidental. As compared with the lapidary forms, it is further worthy of notice that the *theta* with a point (*⊙*) is almost always employed, even in the first half of the sixth century, instead of the cross-bar *theta* (*⊕*), as is the case on coins as well. The alphabetic changes in the fifth century are also of interest to the epigraphist. The introduction of Ionic letters occasionally on the marbles in unofficial inscriptions during this period was commented upon some years ago by Koehler. Kretschmer gives a table comprising the results from forty-two vases of the red-figured style, to illustrate this feature. From this table it appears that certain Ionic letters became prevalent before others. Apart from *Ξ*, *Ξ*, *Ξ*, and *Υ* became established first, and on no vase bearing Ionic letters do the Attic *XΞ*, *ΦΞ*, occur. This no doubt was dictated by convenience. Not much later *Γ* and *Λ* entered, which must naturally coincide. The vowel *H* comes latest, and throughout the table in no instance does it appear without *E* (*=η*), and three times with *H* as aspirate, never with *L*: while *⌒* is found with *E* (*=η*) several times and with *L* once. From the occurrence of *⌒* upon the roll in the hand of the pupil in that beautiful school-room scene of the *Duris* vase in the Berlin Museum, our author concludes that even non-Ionic literature (*Æolic* in this case) was at that time ("before 480") written in the Ionic alphabet, as already conjectured by Wilamowitz. The use of *⌒* instead of *O* in the transition period is regarded by Kretschmer as the result of a natural confusion, and not attributable to the Thasian-Parian mode of writing under the influence of Polygnotus, as has been often assumed; and he appeals to the marbles for support (*Mith. Athen.* x, 363ff, 378). Before dismissing this subject, it may not be amiss to add that the spurious diphthong *-ov* is written several times in full in the sixth and fifth centuries on Attic vases, though only once on the marbles.

In the difficult question involved in the dating of Attic vases, Kretschmer takes advanced ground. He assigns a few inscribed examples to the seventh century, the most archaic of the black-figured type to the first half of the sixth century, and the more advanced to the latter half, thus coinciding in part with the earlier specimens of

the red-figured. This style must have not merely begun before 480 B. C., but have advanced so far in technic that a good part of its development must have preceded that date. The oldest masters united the black and red styles, as Andocides, Pamphaios, Hischylus, Epictetus, etc. Somewhat younger were Cachrylion, Euphronius, Oltas, Sosias, Duris, Hieron, Brygos, etc., whose cups may be placed between 500 and 480. Accordingly, the so-called "beautiful style" succeeds this period, and its inscriptions are characterized by the intermixture of Ionic letters. Vases whose alphabet is purely Ionic cannot be definitely dated, but must reach far into the fourth century.

It is in the early attribution of the "severe style" of Euphronius and his compeers, before 480, and the corresponding elevation of the succeeding style, that Kretschmer's dates go most strongly counter to the views of many. Undoubtedly it is too strict to say that, because a fragment of a vase of Hieron has been found in the "Persian Stratum," his activity was not prolonged beyond the destruction of the Acropolis; yet these dates, taken somewhat more laxly, recommend themselves from one point of view, at all events. The development of style from the archaic in vases is thus brought into better harmony with that of sculpture, and we are not compelled to ask ourselves so seriously why it was that the more facile art of painting lagged so far behind in the evolution of the fifth century. This has always been a difficulty with me, which none of the attempted explanations have satisfied.

It must be confessed that the impossibility of fixing satisfactory dates in the field of vases adds to the disadvantages of scantiness of material, when we compare this work with that of Meisterhans; yet neither of these vitiates, though they diminish, the value of the results.

Montreux, August 29th, 1894.

A. C. MERRIAM.

HEINRICH BRUNN. *Griechische Kunstgeschichte. Erstes Buch. Die Anfänge und die älteste decorative Kunst.* 8vo, pp. x, 185. Verlagsanstalt für Kunst und Wissenschaft. München, 1893.

As the last work of the venerable Brunn this little volume has a special interest. It is the first section of a general history of Greek art, a history which, if completed, will necessarily be of wide influence and importance. For whatever Brunn undertook was in his estimation worth doing well. More than twenty years ago he began this history, when the rapid succession of excavations in Greece bringing to light an abundance of new material forced him either to abandon the enterprise or to modify his plan. He adopted the latter course. No one, he declares, is yet in a position to write a complete history of Greek art. So he attempts to lay the foundation, to reach the point

of view which will render future labor more fruitful. It is to be hoped that the remaining sections of the work were sufficiently far advanced to enable his literary executor, Dr. Paul Arndt, to bring them out in due season.

The section before us constitutes what he calls Book I, and is divided into four chapters: *The art of the pre-Homeric period; The art of the Homeric period; The opposition of Hellenic to foreign influences; The strengthening of the Hellenic spirit.*

In the first chapter he treats of Cyclopean architecture, from a constructive and decorative point of view; then of the Mycenæan stage of civilization, and finally of the vases of the geometric and Dipylon style. He finds here an art of prosaic character, without mythologic content; steeped with foreign influences, but nevertheless suggestive of later Greek methods. Thus the Vaphio vases are compared to the folk-songs which may have preceded and prepared the way for the more artistic Homeric epics. And in the Dipylon vases he sees a new principle in decoration, compositions which are adapted to particular spaces and express intellectual conceptions. In the second chapter he treats of the art of the Homeric period, assuming that Homer's poems reflect the art of his own time. The material for this chapter is furnished less by the monuments than by literary evidence. He describes Homer's shield of Achilles and then Hesiod's more complicated shield of Herakles. A similar art is reflected in the *situlae* from Bologna. This art he recognizes as oriental material formulated by Greek method. In the third chapter he seeks to build up from the monuments a picture of Homeric art similar to that which the Mycenæan objects had offered for pre-Homeric art. These objects he finds in the shields from the Zeus-grotto in Krete, in the contents of the Regulini-Galassi tomb at Caere, and in the paterae from Cyprus, Magna Graecia, and Assyria. All of these objects reflect the art pictured by Homer, and are, in Brunn's estimation, more truly Greek than Phœnician. More interesting still is it to find him picturing a reflex influence of Greek upon Assyrian art, in the later forms of which he recognizes Greek modes of composition and the Greek love of nature. In the final chapter he traces the growth of the Dipylon style in the ceramics of Melos, Thera, and Rhodes, and the general development of the Greek principles of composition and poetic treatment from the painted pottery of Rhodes and Naukratis to that of Corinth and the celebrated François vase. The chest of Kypselos at Olympia and the throne of Apollo at Amyklai illustrate the extreme development of the principles of Homeric art, from which the François vase, somewhat later in date, already exhibits a reaction. This change illustrates the beginning of a new direction in the current of Greek art. A. M.

ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.*

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AFRICA.

EGYPT.

THE PROPORTIONS OF THE PYRAMIDS.—The above question is studied from the point of certain Egyptian texts which give the proportions of pyramids of various sizes, by Lud. Borchardt in the *Zeit. f. Ägypt. Spr. u. Alterthumsw.*, 1894, 1, under the title *Wie wurden die Böschungen der Pyramiden bestimmt?* "How was the slope of the pyramids determined?" Here is an example of the reckonings in a translation of the original:

"Example of the computation of a pyramid. The Wh^3-tbt is 360, the relative $Pr-m-ws$ is 250. Let me know what is its Skd . Take the half of 360: that is 180. Divide with 250 in 180: this makes $\frac{1}{2} + \frac{1}{5} + \frac{1}{50}$ of an ell. One ell has 7 spans. Multiply by 7. Result: its Skd is $5\frac{1}{2}\frac{1}{5}$ spans."

Of the technical terms, Wh^3-tbt and $snti$ belong to the ground-plan ("die Wh^3-tbt und $snti$ entsprechenden Zahlen stehen an den Enden der Grundkanten") while $Pr-m-ws$ and $K^3y-n-hrw$ belong to the elevation ("die auf $Pr-m-ws$ und $K^3y-n-hrw$ bezüglichen an den oberen Enden der dargestellten Pyramiden"). Finally, the term Skd is extremely important: "Es wird zuerst der Quotient aus den Massen der halben Grundkante und der Höhe gebildet, und der erhaltene

* Henceforth the news from the Far East—from China, Japan, Corea, Thibet, Hindustan, etc.—will be omitted. The reasons will be evident. Those countries are largely outside the civilization in which we are interested, and the increase in material to be handled has made this retrenchment necessary, in view of the limits of the JOURNAL.—A. L. F., JR.

Bruch dann unter Zugrundelegung der Elle als Einheit in Bruchtheile der Elle d. h. in Spannen umgerechnet. Die so erhaltene Spannenanzahl ist dann der *Skd*, etc. Die Definition für den *Skd* wird also lauten: "Der *Skd* ist die Zahl, welche angiebt, um wie viel Spannen die Seitenfläche einer Pyramide auf 1 Elle Steigung vom Loth abweicht," or briefly *Skd* = "slope."

This definition being tested by its application to the text measurements given in the article, it is found that the results correspond with actual monuments, such as the south pyramid at Dahshûr, the second pyramid of Gizeh, and the mastaba at Gizeh.

Dr. Borchardt concludes: "Die Bedeutung der besprochenen Aufgaben für die Geschichte der Mathematik brauche ich wohl nicht erst hervorzuheben. Wir sehen hier die nachweislich ersten Versuche auf goniometrischem Gebiete. Die geneigte Lage einer Seitenfläche wird in unseren Beispielen durch das Verhältniss zweier coordinaten bestimmt, genau so wie wir heute einen Winkel etwa durch die Grösse seiner cotangente festlegen."

AN EARLY EGYPTIAN SCULPTOR.—Prof. Erman has an interesting note in the *Zeit. f. Ägypt. Spr.* (xxxI, 2) on an artist of the Ancient Empire whose name he has discovered among the famous reliefs of the tomb of *Ptah-hotp* at Sakkarah. In the lowest corner on the left side of the west wall we read an inscription which Erman translates "der von ihm beschenkte und von ihm geliebte, der ihm ehrwürdige, der Oberbildhauer *Pth-nh-n*." The man near whom this is placed has a characteristic head—evidently a portrait—quite different from the conventional head of the rest. *Pth-nh-n* was evidently the sculptor of the tomb and a friend and favorite of *Ptah-hotp*. As Erman remarks: "If this be a correct explanation, then we have gained in *Pth-nh-n* the name of one of the best Egyptian artists of the Early Empire, a man who distinguished himself above others by fresh humor and fancy."

To the above a note is added by Kurt Sethe, who brings forward a representation in a tomb of the IV dynasty (L. D. II, 12 c.). Here two men are represented with an inscription which describes them to be the painter and architect of the tomb. The painter's name is *Smr-K³*, the architect's . . . —*K³* f.

LAKE MOERIS.—Prof. Brugsch has an article on Lake Moeris in the *Zeit. f. Ägypt. Spr.* (1893, 1, and 1894, 1). In it he studies the texts that mention the lake and its canals, the two main canals being used for all Egypt and regulated by a system of sluices, while a third led water into the middle of the Fayûm, and especially for the use of its main city, Crocodilopolis, of which city Dr. Brugsch makes a special study.

EGYPTIAN STATUE FROM TYRE.—In the collection of Consul Loytved, at Beirut, is a fragment of a late-Egyptian statue found at Tyre. Although a purely Egyptian work, it is a question whether it was not executed for a temple at Tyre. It represents Osiris, and has an inscription relating to his temple. A later mixed Græco-Latin inscription on the back identifies the statue as of a priest of Osiris, and this may have been done when in Roman times an inventory was made of the offerings and other objects in the temple.—*ERMAN* in *Zeit. f. Ägypt. Spr.*, xxxi, 2.

INTERNAL DECORATION OF VASES.—Lud. Borchardt has an article in the *Zeit. für Ägypt. Sprache u. Alterthumskunde* (1894, 1) on the internal decoration of Egyptian vases as represented on the monuments (*Die Darstellung innen verzierten Schalen auf Ägyptischen Denkmälern*). In it he attempts to reconstruct in accordance with true perspective the vases represented without perspective on the monuments. Generally speaking, the design of this internal ornament is shown in the paintings or reliefs by bringing it above the edge of the vase in flat front view. The silver vases were those that showed the highest ornamentation, but, as most of these have been destroyed, the faience vases must be studied for patterns and designs.

The author illustrates in an interesting manner, by reproducing side by side, the same decorative motive as represented incorrectly in the monuments and as found on the works that have come down to us.

FORMULA OF DIPLOMA FREEING FROM SUSPICION OF CHRISTIANITY.—It has never been known exactly how the formula discharging a person suspected of Christianity, on his sacrificing to the gods, was worded. Such a formula has recently come to light, and has been published and commented upon in the *Zeitschrift für Ägyptische Sprache* (xxx, 2) and in the *Proceedings of the Society of Biblical Archaeology* (1894).

This *libellus* certifies that a certain Aurelius Diogenes has appeared duly before the priests and sacrificed to the gods. Its date is A. D. 250.

EGYPTIAN PAPYRI.—A most interesting exhibition is now open in the Museum at Vienna. This consists of a collection of upwards of 10,000 Egyptian papyrus documents, which were discovered at El Fayûm, and purchased by the Austrian Archduke Rainer several years ago. The collection is unique, and the documents, which are written in eleven different languages, have all been deciphered and arranged scientifically. They cover a period of 2,500 years and furnish remarkable evidence as to the culture and public and private life of the ancient Egyptians and other nations.

Prof. W. Golenischeff, the well-known Orientalist of St. Petersburg, bought a number of fragmentary pieces of papyrus which he was

offered when passing through Cairo during the winter of 1890-91. On examining his acquisitions he was most agreeably surprised. Not only the numerous pieces allowed being fitted together so that three long manuscripts could be reconstructed almost completely, but then these papyri proved to be of uncommon literary interest. One of them is, with regard to Old Testament science, one of the most remarkable texts ever dug from the soil of Egypt. A considerable extract from this interesting document is given in the *Sunday School Times* of March 10th. All its information on the political conditions of Palestine, Phœnicia and Northern Syria will be the more valuable because they date from a time on which both hieroglyphic and cuneiform inscriptions have been completely silent so far. Scientific commentaries on the books of Samuel will have to enumerate the papyrus Golenischeff among their sources in future time.—*Biblia*, April, 1894.

EGYPT EXPLORATION FUND.—The seventh ordinary general meeting of the Egypt Exploration Fund was held on May 23, the president, Sir John Fowler, Bart., in the chair.

The financial report was read by the hon. treasurer, Mr. H. A. Grueber, who first dealt with the accounts of the Egypt Exploration Fund, as apart from those of its Archæological Survey (for the latter separate subscription has always been asked), showing that the expenditure for the year 1892-3 had been about £2,140. This sum included M. Naville's expenses at Deir el Bahari, those involved by the continuation of Count d'Hulst's work at Behbeit el Hagar and by the transport of heavy antiquities from El Bersheh, Beni Hasan and Tell Mokhdam, the cost of publications, and also ordinary and extraordinary office expenses. It further included an item of £146, representing the expenses incurred by Mr. Roger and Mr. Howard Carter, when directed by the committee to continue the excavation for the recovery of the Mendes or Thmuis library at Tmei el Amdid, a work which M. Naville had commenced in the previous year. Unfortunately, on account of the absence of M. de Morgan in Upper Egypt, Mr. Roger was not allowed to proceed with the unearthing of the library chambers; and in consequence he was compelled to return to England without having been able to carry out the wishes of the committee. The total receipts for 1892-3 were over £2,121, an income almost entirely due to annual subscribers in England, America and the Colonies.

The expenses of the Archæological Survey during the same year had amounted to over £1,200, including the salaries of Mr. Percy E. Newberry and Mr. Howard Carter, their travelling and living expenses to, in and from Egypt, and the travelling and living expenses of Mr. John Newberry (architect) and of Mr. Percy Buckman (artist), who

had otherwise given their valuable services to the Survey. The £1,200 also comprised £469 for the publication of *Beni Hasan I.* Since subscriptions and donations to the Survey during 1892-3 had not reached £500, the Fund had advanced £700 to its assistance, and it is earnestly hoped by the committee that increased public interest in the Survey will justify their faith in its future. During the three seasons spent in Egypt by officers of the Archæological Survey, sufficient material was collected to provide annual publications for five or six years. *Beni Hasan I.* (1890-1), and *Beni Hasan II.* (1891-2) have already appeared, and will shortly be followed by *El Bersheh I.* and *II.* (for 1892-3 and 1893-4).

The total receipts of the Egypt Exploration Fund had not fallen off during the year under consideration; but the expenditure had increased, owing to the fact that the work now being carried on at Deir el Bahari is a very large one.

Miss E. Patterson, the secretary of the Fund, stated that the forthcoming Memoir for 1892-3 would be a preliminary volume on Deir el Bahari, written by M. Naville, forming a sort of introduction to the series of Memoirs which is to cover the work of the Fund on this site. She also drew attention to a special publication of the Fund, viz., a small Atlas of Ancient Egypt, just issued, of which a few advance copies lay upon the table. In this Atlas each of the ancient maps is accompanied by the list of the nomes, of their capitals, and of their local deities. The maps are prefaced with letterpress, giving a brief account of the history of the Egyptians and of their foreign intercourse, together with a description of their country. The Atlas also contains a chronological table of the dynasties, a list of Egyptian sites mentioned in the Bible—identified when possible—and a short bibliography. The secretary stated that it had been decided to make no distribution of objects from Deir el Bahari until the work was completed, and all had been brought together for comparison.

Mr. John Newberry, the architect, who has for two seasons assisted professionally at the excavation of the temple of Deir el Bahari, then gave an account of the progress of that excavation and its present state. The paper will be printed in the forthcoming *Archæological Report* of the Fund.

The president noticed the engagement of Mr. D. G. Hogarth as an officer of the Fund.

Mr. Maunde Thompson, C.B., returned thanks on behalf of the British Museum for certain antiquities which had been presented by the Fund. He said that the annual volumes issued by the Egypt Exploration Fund would henceforth take a much higher standard than they had ever taken before. In order that the excavations at

Deir el Bahari might not push too far ahead of the work of publication and of the artists employed in copying the sculptures and paintings which are laid bare, it might be necessary to suspend operations for a season. Moreover, Deir el Bahari, though involving great excavation and restoration, and providing large material for publication, is not rich in antiquities; and the society, being bound to consider the advantages of distribution of antiquities, did not propose to confine its work to Deir el Bahari for the next few years.—*Acad.*, June 2.

DAHSHÛR.—M. DE MORGAN'S GREAT DISCOVERIES.—In our last issue the first reports of M. de Morgan's remarkable discoveries in and about the pyramids of Dahshûr were announced. We give here a translation of part of M. de Morgan's report, made at the close of his work to the *Académie des Inscriptions et Belles Lettres*, on April 13, and we add to this an abstract of an article by M. Al. Gayet in the *Gazette des Beaux Arts* of May 1, 1894, which treats in great detail of the jewelry found by M. de Morgan.

"There exist at Dahshûr two pyramids of crude brick, large earthen tumuli, whose sombre aspect contrasts with the yellow of the desert sand and of the neighboring stone pyramids. They are at the summit of the hills bordering the Nile valley on the west. One is to the south, facing the village of Menshiyeh, the other to the north between this village and that of Sakkarah. Until now the northern pyramid had resisted all attacks, while the southern had never been investigated at all.

"In my absence excavations were carried on by my orders to the south and north of the northern tumulus, which I recognized on my arrival to belong, those above to the Ancient Empire and those below to the Twelfth Dynasty. The cartouches of Usertesen II and III and of Amenemhat III left no doubt as to the period of these latter monuments.

"The pyramid had been attacked, and, under the millions of bricks heaped together, were found the untouched diluvian gravel-beds. The royal chamber, therefore, was not constructed within the monument itself, as is always the case in the stone pyramids. It seemed as if it might have been built deeper down. A boring made in the very centre of the trench already opened soon showed that the diluvium continued to a depth of 9.50 m. below the foundation of the pyramid and was without any trace of artificial work. Below this alluvium was a friable sandstone . . . Hence it was useless to search further, for if the tombs existed they were dug in the mass of the rock probably at a great depth.

Tombs.—"The tombs of the Middle Empire in the necropolis of Dahshûr do not resemble in any respect those of the Ancient Empire

discovered by Mariette-pasha at Sakkarah. We do not find in the monuments of the XII dynasty at Dahshûr complicated sepulchral temples covered with bas-reliefs, like those of Ti, of Mera, of Ptah-Hotep, of Ptah-Shepses, *etc.* The mastaba of Dahshûr is simpler and includes no chamber. It is composed of a rectangular solid mass of crude bricks, often very small, covered with a revetment of white Turah limestone. The steles are placed in the revetment, face to the north or east, and have their table of offerings. The well, instead of being opened in the centre of the construction, as is always the case in the tombs of the Ancient Empire, is generally placed north of the mastaba; but the galleries are so dug that the deceased rests precisely beneath the stele bearing his name. The passages leading to the sepulchral vault are either cut in the rock, and in this case are covered with a surbased vault, or are constructed in Turah limestone (and are then of rectangular section), or, finally, are covered with a vault of crude brick in very regular courses and slightly raised. These observations regarding the tombs of the XII dynasty in the necropolis of Dahshûr are the result of the opening of thirty mastabas. There exist striking analogies between the construction of the pyramid and that of the mastabas.

Discovery of the Pyramid Tomb.—"Investigations that I carried on at the base of the pyramid, at the point where the revetment was supposed to be, on the north and east sides, led to the discovery of stones decorated with fragments of inscriptions. One of these bore the cartouche of Usertesen III. This discovery changed into quasi-certitude my suppositions as to the age of the pyramid. I at once resumed the search for the wells in the free space between the foot of the pyramid and its brick surrounding-wall. Many tentative holes were dug through the artificial soil down to the diluvian gravel, and I found the remains of a deep excavation hidden under the sand. Following these traces, I reached the opening of a well (Feb. 26) near the n.w. corner of the pyramid. In the course of the work a tomb, rather poor but of the XXVI dynasty, was found in the débris that obstructed the well, and on Feb. 28 the door of the subterranean structure was discovered.

"A tortuous passage descended gently toward the pyramid and ended in a sepulchral chamber vaulted and lined with white limestone, in which, among fragments of a sandstone sarcophagus, lay the remains of a diorite statue. Everything in the sepulchral vault had been broken. The well by which I entered was probably that of the earlier despoilers of antiquity, who were, of course, earlier than the XXVI dynasty. The first tomb opened into a passageway 110 metres long, running from west to east, and consequently parallel to the

northern face of the pyramid. In the north wall of this gallery there opened door, built of Turah limestone. Everything had been turned topsy-turvy; the sarcophagi were open, but the inscriptions upon them showed that in the second vault queen Nefert-Hent, among others, had been buried. In the midst of broken slabs and rubbish lay skulls, canopi, vases of terracotta and alabaster. Everywhere was the greatest disorder, and in places the white walls still bore the marks of the spoilers' hands.

"This first visit made, I immediately set the men to clearing the main gallery. A stone wall was met and passed, and on the other side of it I found sure signs of the existence of another well. It was time that an opening were found, for air was beginning to be bad in the gallery and the lamps were going out. I made a ground-plan of the subterranean excavations, and, applying it to the surface, fixed on the point where the opening was made. This well (the only original one, the other being made by the plunderers) was opened up in a few days. It was made near the northeast corner of the pyramid, and led to the discovery of a tomb until now unknown. Twelve sarcophagi of princesses were successively discovered and the clearing of the rubbish began.

Jewelry.—"On March 6, a first treasure was discovered. The jewelry, placed in a coffer incrustated with gold and silver, had been buried in the very soil of the gallery, at a depth of about 0.40 m., near the door of the tomb of the princess Hathor-Shat. On the next day, March 7, another hiding-place was found in a neighboring gallery, at the foot of the tomb of princess Sent-Seisbet. These treasures are extremely rich: necklaces, bracelets, rings, mirrors, pearls and jewels of all sorts. This jewelry was brought out by hundreds from the cavities in which they had been heaped. The coffers had been destroyed by dampness, and their rich contents lay pell-mell in the sand and débris. Almost all the jewelry is of gold, often incrustated with precious stones.

"In the first treasure there were: a gold pectoral enriched with precious stones and representing the cartouche of King Useratesen II sustained by two crowned hawks; two bracelets; several necklace clasps; the whole in gold incrustated with lapis-lazuli, carnelian, Egyptian emerald, turquoise and obsidian; several scarabs, one of which bears the name of Useratesen III and another that of Princess Hathor-Shat—these two scarabs are perfect marvels, both for the material in which they are cut (amethyst) and for their workmanship; six crouching lions; necklaces made of gold pearls, amethyst and lapis-lazuli; large gold shells imitating cyprea, others representing pearl oysters; a gold necklace; a silver mirror; and a multitude of small objects of the most perfect workmanship.

"The second treasure is far more important than the first. It comprises several hundred objects, among which should be mentioned a gold pectoral decorated with precious stones. In the centre is the cartouche of King Amenemhat III. On both sides the king is represented standing, with raised mace, striking an Asiatic captive, designated by an accompanying inscription. Above soars a vulture with wings spread. On the reverse, this scene is in chiselled gold; the incrustations of this piece are of lapis-lazuli, Egyptian emerald, feldspar, turquoise, carnelian and black obsidian. These gems are not only cut in the desired shape, but also carved; the heads of the king and captive, as well as the bodies, show in relief every minute detail. Another pectoral, with the name of the same king, bears his cartouche sustained by two griffins. Four captives are represented on this piece, two Asiatics and two negroes. On the reverse, the same scenes are chiselled in gold. These two pieces, of the first importance, are, together with the pectoral of Useresen II, the finest pieces of jewelry discovered. Then come incrustated bracelets with the name of Amenemhat III; numerous scarabs with the names of the kings and princesses; three mirrors, two of which are in silver, mounted in gold; a necklace of lion-heads combined four by four, each of the pearls of this necklace being of the size of an egg; gold shells as large as the lion-heads; necklace clasps enriched with precious stones; necklaces of gold, amethyst, emerald, lapis-lazuli; a glass pearl; four lions couchant, of gold, *etc., etc., etc.*, vases of carnelian, lapis-lazuli, obsidian and alabaster, some of which are decorated with gold-work, and a multitude of small objects of less importance, but the workmanship of which is no whit inferior to that of the large pieces.

Other Tombs.—"A continuation of the digging led to the discovery of a line of eleven wells running from east to west. Some had fallen in and appear never to have been finished; but one of them, the one nearest to the royal well, gave most important results. On April 19, this well having been cleared, I found a door giving access to a passage-way 14.60 m. long, covered with a skilfully constructed cylindrical vault. The door was opened with all the precautions required by the bad condition of the gallery, and as soon as the first stones were removed we had before our eyes all the objects in a small chamber, just in the places where they were left by the priests of the XII dynasty or by the family of the deceased. Here were earthen vessels still containing Nile mud; here were pieces of embalmed meat, and further on plates with dried provisions. In a corner were two cases, one containing perfumes in alabaster vases carefully labelled in hieroglyphic characters; the other contained only

sceptres, canes, a wooden mirror, and arrows whose feathers were in a remarkable state of preservation. Until now it was impossible to say whether this tomb was that of a man or woman, for it contained both arms and toilet articles. The only indication found was the seal with which the perfume coffer was closed, on which was the name of the friend of the King Tesh-Senbet. As soon as the objects had been numbered and a sketch of their position taken, the opening of the sarcophagus was begun. The slab being raised, the wooden sarcophagus appeared covered with gold leaves, decorated with two head pieces and terminating in a shelving ridge. A gold inscription occupied the entire length of the cover: it gave the name and title of the deceased, the princess (or royal daughter) Noub-Hotep-ta-Khroudil. The body of the sarcophagus, also decorated with gold leaves, was of natural wood, only the gold bands bearing inscriptions were framed in a line of green paint. The mummy had suffered very badly from dampness: there remained but a mass of bones, jewelry and dust, enclosed in the remains of a plaster covering completely gilt. The objects had not been touched. On the left were the canes, the sceptres, the flagellum—a curious implement often represented on the temple reliefs, but never found as complete as this one. On the head were placed a silver diadem incrustated with precious stones, a uræus and a gold hawk-head. On the breast was a necklace decorated with about fifty gold pendants, incrustated, and ending in two gold hawk-heads of natural size. Toward the belt was a poniard with gold blade, and on the arms and feet were gold bracelets decorated with pearls of Egyptian carnelians and emeralds. The head of the mummy was, as usual, at the north end of the tomb; to the left of the feet was the canopic case plated with gold like the sarcophagus and covered with texts. Among the titles of Princess Noub-Hotep, there is no mention of her having been queen, and yet I found in her tomb all the attributes of royalty. Perhaps she died before her husband came to the throne, while he was still only the heir-apparent.

“The tombs of King Hor (see further on) and princess Noub-Hotep, as well as the details of their sepulchral furniture, show that these two persons were buried at the same time. Can we admit that the princess was either the wife or the daughter of the king next to whom she was buried? Until further light comes, this is my opinion.

“At the same time that the investigations were being carried on, I was drawing up a detailed report of their results, which will be published in a special volume, in which will be illustrated all the objects, texts, plans and architectural details. I am assisted in this work by MM. G. Legrain and G. Jéquier, members of the French Oriental Institute at Cairo, as the Egyptologists of the *Service des Antiquités* are

detained either at the Gizeh Museum or at the other excavations undertaken by my administration at different points in Egypt," etc.

At the meeting of the *Académie des Inscriptions*, at which the full text of the above report was read, M. Maspero spoke, making some corrections to the report, and establishing the fact that the king whose mummy was discovered is not unknown. His name is given in the "royal canon" of Turin, and should be read, in its full form, *Autu-ab-Ra*. There are two kings of this name in the XII dynasty. This must be the earlier of the two, who lived apparently a century and a half after Amenemhat IV.

King Autu-ab-Ra.—In the above extracts from M. de Morgan's report, published in the *Revue de l'hist. des religions* (March-April, 1894), the description of the finding of the royal tomb and mummy is omitted. This king is referred to above by M. de Morgan under the name of *Hor*, and his tomb was next to that of princess or queen Noub-Hotep. In the *Athenæum* report it is spelled *Heru-āu-Rā*. We have seen that M. Maspero reads *Autu-ab-Ra*. Here is the note in the *Athenæum* of April 28:

"Not far from the pyramid at Dahshūr, to the north he (M. de Morgan) has found a royal tomb containing the remains of a new king, probably of the XIII dynasty, called *Heru-āu-Rā*; the sarcophagus chamber was found at a depth of 32 feet. Like so many fine tombs of this period, it was despoiled in ancient days, but the mummy, though in a bad state of preservation, has been found intact, together with the wooden sarcophagus decorated with plates of gold inscribed with the royal cartouches and titles, and a number of gilded paste ornaments. Near the sarcophagus was found a gilded wooden shrine, also inscribed with the royal cartouches and inscriptions, and in it a gilded ebony statue of the king about 4 feet 8 inches high. Two broken 'Canopic' vases, an alabaster table of offerings inscribed with lengthy religious texts and the king's names, and a very large number of smaller objects complete the find. M. de Morgan has reason to believe that he is on the eve of finding the tombs of the kings who built the brick pyramids at Dahshūr, and he is pressing on the work with renewed activity. It is early to decide where this new king is to be placed, but it is pretty certain that we must consider him to belong to the early part of the period of the XIII dynasty, when names of the kind were in use; as many copies of the name have been found, there can be no doubt about the accuracy of the reading of the signs."

We have seen above that M. Maspero places this king in the XII dynasty.

In a popular notice inserted by Charles de Koven in *Harper's Weekly* of June 23, there are one or two points not touched upon in the above notices, and mostly posterior to M. de Morgan's report.

M. de Morgan, continuing at work near and under the northern pyramid, on April 10th set his native workmen sounding about the southern, also of brick, hoping to arrive more cheaply at the plan whereby these kings concealed their graves, the southern pyramid being much freer from sands. Up to May 15th, however, he had not found the key.

Near the old circle about the north pyramid, however, he met traces of the name of Amenemhat III, and April 17th a statuette of gilt wood; then he unearthed the record of an unknown king of the Twelfth Dynasty, Hor Fou-Ab-Ra. Moreover, he learned just where that king came into the royal line. For, rooting about the floor of the tomb, he found under a heavy stone a box whose cord had been sealed with the seal of Amenemhat III. As his successor sealed with his royal seal the boxes of the dead king, here is proof that Fou-Ab-Ra must be placed after Usertesen III, and immediately before the builder of the Labyrinth. The tomb of this king was rifled. His sarcophagus had been opened and the mummy-case shattered. A statue of ebony inlaid with gold, a temple-shaped canopy, upset, canes and sceptres lay about. Two square inscribed slabs were intact, bearing the king's name. On the 19th he dug out a shaft which gave access to a grave—and this time an absolutely untouched one—the only unrifled grave he had found. This belonged to a princess called Noup-Hotep-Ta-Khroudil.

At the south pyramid little has been found, except remains of a portal before the eastern face, a section of rose-marble column, and, on another side, no less than eleven separate shafts, such as lead to tombs. Near the surface were traces of bench-shaped chapels, and great were the expectations! But here a terrible disappointment befel: Only two of these shafts had been pushed to completion, and they, although each had its deep-lying grave, contained nothing of importance.

The pursuit for the grave of one of these three famous kings continues. Meantime M. de Morgan has made a very peculiar find. About two hundred yards to the south of the northern pyramid he chose a spot in the sands, and on the 1st of May struck the roof of a vaulted gallery, closed by a wall at the eastern end, and turning to a narrow pass at the western. Beyond the wall to the east were great masses of broken stone from the Tourah quarries across the Nile. Working into these, on the 13th and 14th of May two big galleys were found, each about thirty feet long, richly painted, and in a fine state of preservation.

In themselves these are unique survivals, but they indicate much more. They are specimens of the celebrated funeral boats we see on the walls of graves in Egypt, which carried the corpse from the east to

the west bank of the Nile, symbolizing the journey from birth to death, as well as the sun's march from east to west. It is as if one found the royal hearse. Can the royal corpse be far away?

To this discovery of royal (?) sepulchral galleys the following exaggerated note in the *Academy* of July 14, probably refers: "We hear from Egypt that M. de Morgan's latest excavations at Saqqârah have been attended with the most unexpected success. He has discovered a buried fleet of the old Empire, with masts, sails, and rigging complete. One of the ships measures thirty-five metres in length."

DESCRIPTION OF THE JEWELRY.—M. Gayet writes on April 14 from Cairo a long letter to the *Gazette des Beaux Arts* (May 1) in which he analyses the style and shows the interest of the jewelry of which M. de Morgan has found over eight hundred pieces.

M. Gayet recalls how the brick pyramid of Dahshûr was by many attributed to as early a date as the time of Snefru (III dynasty). He calls attention to the fact that M. de Morgan's profession as an engineer and his consequent geological acquirements were what really gave him the clue to his discoveries, for he was able to ascertain, by analyzing the surface refuse thrown up in antiquity from the wells, that these wells were dug to depths of 12, 15 and 18 metres.

The conclusions to be drawn from the jewelry found are probably the most important results of the excavations. Hitherto certain forms and themes (first appearing in works of the New Empire) had been regarded as borrowed from Asiatic art. But now (being found in works of the XII dynasty) it would seem as if Asia had borrowed them from Egypt.

Three pieces stand out from all the rest for beauty of workmanship, perfection of design and the perfect understanding of polychromy shown by the artist in the distribution of the colors. They are the three pectorals with the names of Usertesen II, Usertesen III and Amenemhat III. The design represents, as ever, the mysterious *naos* and the entire field is cut away. In the centre of the pectoral of Usertesen II is the cartouche with the royal prenomen Kha-Kheperu-Ra, surmounted by the three divine axes and the altar bearing the bread offering. On each side is a hawk standing on the sign of gold and bearing the crowns of Upper and Lower Egypt. Finally, at each of the two upper corners of the *naos*, under the cornice, is the solar disk, around which is coiled the sacred serpent bearing the sign of life, the *crux ansata*, around its neck. The process employed by the jeweller in this piece is the same as that employed in the XVIII dynasty, and which reminds so closely of *cloisonné* enamels. The border of the design is given by a gold rib or ridge, the raised edge of a metal ground which is divided into *cloisons* by secondary ribs within which are

fastened enamel pastes and precious stones. The hawks of Usertesen II have bands of turquoise and lapis-lazuli; the suns are formed of a carnelian disk surrounded by a green aureole of glass paste; the inscription is of turquoise and feldspath; the scarab with the royal prenomen is of lapis-lazuli. Finally, the upper border of the pectoral is formed of an Egyptian cornice divided into alternately blue and green palmettes, while the crucibles upon which the hawks stand are also blue and green.

The style of the pectoral with the name of Usertesen III is exactly the same. The cornice of the *naos* is sustained by stems ending in a lotus flower: another stem with its flow bends forward onto the field. Directly under the cornice is the hawk with spread wings, holding in each claw the seal of the mystery of infinity. Below it is the cartouche with the prenomen *Kha-Kheû-Ra*, held up by the fore-paws of two sphinxes with lion bodies and hawk heads, crowned with the double horns of the viper and the feathers of light, treading under foot the foreign nations, represented by an Asiatic and a negro under each sphinx. This pectoral is more cut away in the ground, and differs from the preceding also in the tone of its polychromy. Red and green are combined in almost equal parts with blue. The head and feet of the hawk are green; the feathers of its body and wings alternately blue and red: the feet of the sphinxes are of feldspath, their body and the feathers of the head dress are red and blue. The prisoner under the sphinxes' hind-feet is of lapis-lazuli; the one crouching beneath his fore-feet in carnelian; the lotuses and cornice are of equal blue, red and green tones.

The most highly detailed of the pectorals, that with the name of Amenemhat, has in its upper section a hawk like that of the preceding pectoral except that in its talons the seal has given place to the signs of life and duration, extended over the king's head. An inscription placed between the wings and the upper cornice gives twice the word *nebpe* "master of heaven." Below the hawk is twice repeated the cartouche with the prenomen *Mah-n-Ra* accompanied by the titles *nouter nefer neb taoui testou nebt* "The good god, master of the two-fold land (Egypt) and of foreign countries." This king is himself twice represented, raising his mace over a kneeling prisoner. Behind him a personified *crux ansata* holding in both hands a mystic emblem. An inscription gives: *Hou meti Ment* "he crushes the Ment" (Nomads of Sinaï); and finally, in the corners, the words: *Hent taoui* "he governs the two-fold land." The tonality of this last pectoral is red. There is quite an element of turquoise blue, but garnet predominates. The flesh of the king is represented by carnelian, his skirt by a yellow earthen paste. The prisoner has the tanned complexion of the Asiat-

ics: his hair is of lapis-lazuli. The hawk, the palmettes of the cornice, the inscriptions, are almost entirely red and blue; but the ribs of the *cloison*, quite thick, give to this polychromy an unusual strength and harmonize the separate tones in a soft shimmer.

These pieces show a developed artistic education, and are superior to the treasure of Queen Ah-Hotep (xviii dyn.): the treatment has greater breadth, vigor and refinement. The types to be followed later are here already established but not slavishly: they are purer and more supple than later. Probably if a treasure contemporary with the pyramids of the Ancient Empire were found it would show the most perfect types.

M. Gayet then gives a complete list of the jewelry found at Dahshûr up to date. He notes that they show a remarkable fondness for shell forms, a fact that is no coincidence, though the reason now escapes us, for all the tombs of the xii dynasty contain bivalve shells, many engraved with the names of the Usertesens. Hundreds have been found at Assuân, Gebeleïn and Minyeh. They are not found either before or after this period. Secondly, the lion-masks decorating the eight pearls of a necklace are worthy of a place in the history of Egyptian jewelry, for this decoration had been hitherto supposed to have been imported from Asia under Thothmes III. This was but an example, it was said, of the general fact that the industrial arts in Egypt were formed entirely on Asiatic models at that time. The treasure of Dahshûr destroys this illusion, for under the xii dynasty Egypt knew no Asiatic civilization, and was familiar only with the nomads of the desert, who had no art. M. Gayet concludes: "The solution of the problem is precisely opposite to the one supposed: it is Asia, who, taken captive to Egypt, learned of its jewellers, cabinet-makers, weavers, and ceramists their secrets, and which, when constituted as a nation, reproduced the motives learned during slavery. That certain arts should then have been developed among them more than in Egypt is nothing extraordinary. All the same, a great historic fact remains unassailable. It is Egypt which educated Asia, and not the reverse." Had these works been executed under the reign of the Ramses they would surely in many cases have been regarded even as purely Asiatic works, for many are exactly like the objects represented on the reliefs of Thothmes as brought back from Asia. [M. Gayet certainly must be taken with a large grain of salt. Where is the proof that Egypt did not derive these motives from Asia under the Ancient Empire? The civilization of Babylonia is older than that of the pyramids, and the school of critics is growing which regards Egyptian civilization as a branch of Asiatic from the beginning. Certainly it can hardly be denied that communication between the two civilizations existed during the Ancient Empire.—Ed.]

KOPTOS.—DISCOVERIES OF MR. PETRIE.—PREHISTORIC PERIOD AND ANCIENT EMPIRE.—The following is Mr. Petrie's preliminary report on his work at Koptos, the great importance of which was alluded to in our last issue: "Believing that the dynastic Egyptians had entered the Nile valley by the Koser-Koptos road, I applied to M. de Morgan for permission to excavate at Koptos, in hopes of finding some trace of the immigrating race. That permission was readily granted, and I cannot thank M. de Morgan too much for the manner in which he has facilitated my work in every way possible.

"In eleven weeks I completely turned over every yard of the temple site of Koptos, and learned far more of the earliest Egyptians than all that was known before. The prehistoric results are unique; and the historical remains include the works or names of thirty-five kings, the most continuous series known on any site, extending from the ivth dynasty to the third century, A.D. The following are the principal results in chronological order:—

"*Prehistoric.*—Portions of three limestone statues of the local god Min (or Khem), about 13 ft. high when complete. These each have a girdle of thongs, like the Ababdeh girdle of the present day; but with a decorated flap hanging down the right side. The figures on the flap are roughly outlined by hammer-work, with much spirit, but as simply and naively as on the bone cave carvings of Europe, which they much resemble. The statues themselves are merely shaped monoliths, with half developed arms, legs grooved out like a Greek "island figure," and a head with gross ears, whiskers, and no face; the features were probably supplied by an attached wooden mask. The whole affair is quite barbaric, and far more akin to the stone age of Europe than to anything known in Egypt. These figures were found buried, like many other sculptures, beneath the foundations of the Ptolemaic temple. There is no age of Egyptian work known, from that period back to the iv dynasty, when any carving in the least like this was executed. These figures show a gradation in skill and age, indicating that they were successive; and hence their use covered a long period, and they cannot have been the product of any brief wave of barbarism. Moreover in two points—the indication of the origin of the hieroglyph of Min, and the attitude differing from all known statues of Min—these works show that they belong to an age which was already past in historical times. The carvings on them represent the fetish pole of Min, decorated with a feather and a garland, and hung round with sawfish and pteroceras shells. Such a derwish pole is akin to what is now seen in the Red Sea region. And the figures of animals—the ostrich, elephant, sawfish, and shells—all point to the immigrants having arrived there from the south of the Red Sea. A

closer agreement with what was expected could hardly have been devised.

"I—III Dynasty. Pieces of pottery statues and relief work were found in the earliest part of the temple. These are of careful finish, and were presumably the best products of their age, being offered in the temple. Details of these show them to be earlier than any of the historical stone statuary; and such modelling in pottery explains the rise of Egyptian art, without its leaving any permanent trace before its bloom in the IV dynasty. A period of pottery also explains all the peculiar conventions of the stone sculpture. IV Dynasty. Part of a large alabaster vase of Khufu was found in the town, doubtless from temple furniture. VI Dynasty. Part of an inscription of Pepi I, and two slabs with figures of Pepi II. XI Dynasty. A large quantity of sculptures of the temple of Antef V (Ra-nub-kheperu) were found, laid face down for a later pavement. They indicate a brick temple faced with stone. There is not a single piece of temple sculpture of this dynasty in Europe. A long decree of Antef V was found, deposing the prince of Koptos for treason, and elevating a new princely family. XII Dynasty. Portions of very delicate relief sculptures of Amenemhat I, and sunk relief sculptures of Useratesen I; also the greater part of the temple door jamb of Useratesen I with very fine sculpture; also a door jamb in red granite. Not a single slab of temple sculpture of this age was hitherto known. Of Amenemhat III there is a colossal vulture, weighing about a ton, but headless. XIII Dynasty. Of Sebekhotep V, I brought part of a stele, naming a new queen and two new princesses. Scarabs of Mer-nefer-ra and of Apepa, were obtained from diggers in the town. XVII Dynasty. Of the king Rahotep, only known by a few scarabs and a posthumous tale, we found portions of a large stele, showing that he restored the temple. XVIII Dynasty. Tahutmes III entirely rebuilt the temple. His foundation deposits I cleared out carefully: in one pit were about 200 vases, thirteen alabaster vases inscribed, many bronze tools inscribed, and corn grinders, beside beads, scarabs, &c. Many blocks of his temple sculpture were found, and most of his foundations remain. XIX Dynasty. Seti I appears on a small sphinx. Of Ramessu II, there is a fine life-size group of the king seated between Isis and Nebhat, carved in red granite, and in fair condition. It belongs to the earlier part of his reign, and is of good work. The weight is about three tons. Part of a long stele recounting the offerings made to Ramessu from all lands is of interest. Other steles of this age were found. Menenptah's name also appears in the temple. XX Dynasty. A large granite stele of the twenty-ninth year of Ramessu III; and the scene of a limestone stele of Isit, daughter of Ramessu VI, and of

an unknown queen, Nubkhesdeb. XXII Dynasty. A pillar of Osorkon I (?). XXVI Dynasty. Sculpture of Psamtik II, and the lower part of a small chapel of Aahmes II. XXX Dynasty. Part of small obelisk of Nekhthorheb.

"*Ptolemaic*.—A wall of Ptolemy Soter; a long inscription of an official under Philadelphos, who rebuilt the temple—110 cubits long and 40 wide, agreeing with the foundations now found. Part of a statue of Euergetes. Sculptures of Ptolemy IX and XIII.

"*Roman*.—Temple sculpture of Augustus, Tiberius, Claudius, and Nero. Greek inscriptions of Galba, Domitian, Caracalla, Elagabalus, and Quietus. Some of the Greek inscriptions are of interest, especially one found just before I arrived, giving the customs tariff on persons and goods from the Red Sea, under Domitian.

"Of uncertain but early date we found flint flakes and pieces of knives scattered on every square yard of the primitive soil that we uncovered. The first settlement was on a rise of yellow clay, washed out of the Hammamat valley, and deposited as a fan in the Nile valley. Large quantities of pottery of the early settlement, and wells, were also found.

"It is remarkable, in one spot, and in so short an excavation, to have found such an extensive historical series; the barbaric statues, and the rise of modelling in pottery, have opened an entirely new chapter of Egyptian history, and given us a greater advance than anything since Mariette's uncovering of the art of the old kingdom.

"I have been much assisted by a new student, Mr. Quibell, who is now finishing the packing and transport of the collection; his last letter says that the 150th package is done, and more yet await him. M. de Morgan most kindly relieved me of the transport of the heavy statues, &c., as they were going to the Ghizeh Museum.

"I hope to have an exhibition of the sculptures and objects which come to England, during the four weeks of July, at University College, Gower street; and I shall illustrate the finds by photographs at a lecture there on the 26th of this month, which will be open to the public (Saturday, 2 p. m.)

"I may add that I purchased, in Cairo, the longest Greek papyrus known; it is in several hands, but all the forty-four feet of it refer to the subjects of the administration of the royal oil estates under Ptolemy III. Though broken, it will give much light on the administrative details, in the recital of decrees, by-laws, and fines, and the area of the estates in each nome. The Craven scholar, Mr. Grenfell, who was with me for some time studying excavation, will edit this papyrus on his return to England."—W. M. FLINDERS PETRIE, in *Academy*, May 19.

SAKKARAH.—TOMB OF MERA.—While awaiting the opportunity of publishing a more extended notice we give here a brief note on a very important discovery by M. de Morgan.

"M. de Morgan, in the course of his excavations at Sakkarah, has found the tomb of a certain Mera, his wife and his son. Mera lived during the days of Tetas, a king of the sixth dynasty. The tomb consists of no fewer than thirty-one rooms and walks. In eighteen of these there are decorated sculptures, which are very well preserved. In one of the rooms, which is filled with columns, there is also a statue of Mera, nearly eight feet high. The burial room of his wife is especially beautiful. The leading pictures on the walls are weeping women, laborers working in metals, dancing figures, and the like. This monument is one of the most beautiful that has ever been found.—*N. Y. Independent*, June 7.

NUBIA.

INVESTIGATIONS BY PROF. SAYCE.—We quote from a letter of Prof. Sayce as a supplement to the information in our last issue: "I have returned from Nubia with a goodly amount of epigraphic spoil. This has accumulated largely since my last letter was written, as we spent some time at each of the temples of the ancient Dodekaschoenos which still remain above ground. We have also discovered the remains of two other temples which were hitherto unknown. One of these occupies the northwestern part of the enclosure of a large fortress of mud brick which we found about three miles to the north of Dakkeh, and opposite Koshtemneh, near which I copied a *graffito* stating that the place was called 'the Good House.' The fortress resembles that of Matuga, though on a smaller scale; and the bulbous bases of the columns of the temple, which stand on a great platform of crude brick, indicate that it was built in the time of the XVIII dynasty. It was at Dimri, between Qertassi and Debot, that we came across the relics of the second temple, in the shape of large cut stones, the fragment of a royal cartouche, and an inscribed block of gray granite. The latter seems to show that the place was called 'the Temple of Shet.'

"On our way to Maharraqa we explored the so-called Roman city of Mehendi, and found that it was of Coptic origin, without a vestige of anything Roman about it. On the rocks I observed some Christian emblems, including Noah's dove with the olive branch in its mouth, the Good Shepherd, and the *crux ansata* used for the Christian cross. The southern gate of the city has been constructed with stones from some old Egyptian temple, and the sculptures on them show that it must have belonged to a good period of art.

"We examined the temple of Dakkeh pretty thoroughly from both

an architectural and an epigraphic point of view. On one of the blocks which have fallen from the north wall of the sanctuary of the Ethiopian king Arq-Amon, I found some later additions to the inscriptions of the latter, which contain not only the name of Tiberius Caesar, but also the name of a Cleopatra, not, however, enclosed in a cartouche. The wife of Arq-Amon, it may be noted, was a Cleopatra. I may add that the scene in which Arq-Amon is represented offering worship to the deified Per-aa, or Pharaoh, of Senem, cannot bear the interpretation commonly assigned to it. There can be no question of an act of homage performed by the Ethiopian prince to the reigning Ptolemy of Egypt, since, at Kalabsheh, Augustus is similarly represented adoring 'the Pharaoh of Senem,' who is here identified with Horsiesis, and, at Philae, Ptolemy Philadelphus—the contemporary of Arq-Amon or Ergamenes according to Diodorus—also offers adoration to 'the Pharaoh of Senem, the great god of Abaton.' Last year I discovered a stele of Ra-mer-en of the VI dynasty, which stated that he had received the homage of the Nubian princes in the island of Senem or Bigeh; and it is therefore possible that in Ra-mer-en we are to see the original of the deified 'Pharaoh of Senem.'

"At Kubbân, opposite Dakkeh, Mr. Wilbour bought a statue of a hitherto unknown 'royal son of Kush' called Haq; and about a mile to the north of the old fortress I found some hieroglyphic inscriptions on a rock, in one of which mention is made of 'the 12 schoeni.' In the ruined town of Qirsh or Sabagura, opposite Gerf Hosain, we found nothing, and went on to Dendûr, where we copied all the texts. Among them is the well-known Coptic inscription which refers to the Nubian king Eirpanome and the bishop Theodore, who transformed the temple of Philae into a church. The text of the inscription published by M. E. Revillout in the *Revue égyptologique* (iv. 3, 4, pp. 167, 168), needs several corrections. In some of the hieroglyphic inscriptions of Dendûr the sacred name of the place is given as 'the city of the divine brothers,' who, as Mr. Wilbour pointed out to me, are clearly the two deified sons of the Ethiopian prince Kubar who were worshipped there. It is noticeable that, in the Greek verses copied by Prof. Mahaffy and myself at Kalabsheh, mention is made of another pair of deified brothers, Breith and Mandoulis, who are identified with the twin stars Castor and Pollux. Among the ruins of the ancient city to the north of the temple of Dendûr, I discovered the image of either Kubar or Petisis, the elder of the two brethren, which long ago had been dragged out of the shrine. In spite of the barbarous character of the art, the image is interesting, as it combines a coarse reproduction of late Roman workmanship with the details of Nubian dress as exhibited in the figures on the dado of the Roman

chamber at Dakkeh. Thus, a girdle with pendants attached to it runs under the naked stomach, and the waist is bare except for a belt. On the other hand, a cloak is thrown over the shoulders, which covers the left breast but leaves visible a collar round the neck. Near the statue is a fragment of an altar in the Roman style.

"Kalabsheh again detained us for some time, and I discovered there a somewhat long inscription in cursive Latin dated in the twelfth year of Nerva Trajan. One of the hieroglyphic texts copied by Mr. Wilbour mentions 'Amon-Ra of Perem' or Primis. Primis Parva is usually identified with Ibrim, though according to Ptolemy it ought to be higher up the Nile. I have already noticed that the Greek *proskynēmata* make it impossible to accept the suggestion of Lepsius, that the long inscription in Ethiopian demotic which adorns one of the columns of the court at Kalabsheh contains the same text as the celebrated Greek inscription of the Nubian king Silco which is engraved on the adjoining column. The *proskynēmata* which belongs to the time of the Antonines were painted on the stone after the Ethiopian inscription was engraved, whereas Silco flourished subsequent to the age of Diocletian. Whether, however, Silco was a Christian, as is commonly assumed, is doubtful. Prof. Mahaffy sees nothing in his inscription which necessitates such a conclusion; and under it I have found a picture of the king representing him on horseback, in a costume partly Roman, partly Nubian, with a fallen enemy beneath the front legs of his horse, and a flying Victory offering him a wreath. To the left is the Horus hawk. The whole design, it will be seen, is distinctively pagan.

"At the entrance to the temple is a mutilated inscription, stating that it was changed into a church and dedicated to Arkhilas (Archelaus) and other martyrs by Epimakhos, 'bishop of Talmis.' The name of Epimakhos occurs in a long text, written in Coptic letters, but apparently in the 'Nubian' language, which I copied at Gebel Addeh, south of Abu-Simbel. Epimakhos may have lived shortly after Theodore of Philae; at all events while at Philae we are told that 'the cross has triumphed,' at Kalabsheh the word *σταυρος*, 'cross,' is repeated four times. I rescued from destruction at Kalabsheh another Christian monument, a rude seated figure of stone, with an inscription on the throne recording the name of a certain *βελιτάρις* or 'veredarius.' Before parting from the early Christians of Nubia, I must not forget to say that one of the texts I copied at Faras is an early Coptic version of a letter of Abgarus (*Αβγαρος*), 'king of Edessa.'"—A. H. SAYCE, in *Academy*, March 17.

SOUTHERN AFRICA.

The last two finds from the ruins in Mashonaland are of exceptional interest. One is a platter 38 inches in diameter, with a crocodile carved in the middle, and signs of the zodiac and other asterisms around the edge; this is a valuable testimony to the theory set forth by Mr. Theodore Bent and Mr. Swan as to the orientation of the principal ruins and their probable Arabian origin. The other is a coin of Antoninus Pius found in an old working near Umtali, 70 feet below the surface, which would point to Roman intercourse with this gold-producing country early in our era.—*Athenæum*, July 14.

ALGERIA AND TUNISIA.

The provinces of Algeria and Tunisia have been usually neglected in our news reports: this is the less necessary from the fact that there is a large number of special publications published both by local societies in these provinces and in France itself, especially in the *Missions Scientifiques*. We propose, therefore, in the future, to give to this part of the news its right place and will begin very soon by a general review of recent progress in discovery and research.

ASIA.**TENTH INTERNATIONAL CONGRESS OF ORIENTALISTS AT GENEVA.—**

The following notification of the approaching tenth International Congress of Orientalists has been sent out.

"Nous avons l'honneur de vous informer que, conformément à la décision qui a été prise à Londres, en septembre 1892, le Congrès international des Orientalistes tiendra sa X^e session à Genève, du 3 au 12 septembre 1894.

Cette session sera présidée par M. le professeur Édouard NAVILLE.

Nous venons donc vous inviter à prendre part à ce Congrès, qui, nous l'espérons, réunira en grand nombre, à leurs confrères suisses, les savants étrangers qui font, de l'Orient et de ses langues, l'objet de leurs travaux.

Le Comité d'organisation a décidé que le Congrès de Genève comprendrait les sections suivantes :

- I. Inde et langues aryennes.
- II. Langues sémitiques.
- III. Langues musulmanes (arabe, turc, persan, etc.).
- IV. Égypte et langues africaines.
- V. Extrême Orient.
- VI. Grèce et Orient (Grèce archaïque, Asie-Mineure, Hellénisme, Byzance).
- VII. Géographie et Ethnographie orientales.

Toutefois, si le nombre et la nature des travaux annoncés rendent cette mesure nécessaire, le Comité facilitera volontiers la formation de sous-sections, par exemple d'une sous-section pour les Langues aryennes et d'une autre pour l'Assyriologie."

COMITÉ D'ORGANISATION.

Président : M. Édouard NAVILLE, Professeur à l'Université de Genève.

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Trésorier : M. Émile ODIER, Banquier, de la maison Lombard, Odier et C^{ie}., etc., etc., etc.

ARABIA.

PALMYRA.—MONUMENTS IN BRITISH MUSEUM.—Prof. D. H. Müller describes and publishes in the *Vienna Oriental Journal* (VIII, 1) a number of Palmyrenian Monuments in the British Museum, among which is the relief of a bearded warrior whom the inscription shows to be 'Atenatan, son of Zabd'atē, the Satrap. The inscription is dated in the year 366 of the Seleucidæ=55 A. D., a remarkably early date for such monuments.

BABYLONIA.

LITERARY DESCRIPTION OF ASSYRO-BABYLONIAN GODS.—It is well known how extremely difficult it is to identify the different Assyro-Babylonian gods represented on the monuments. A careful study of the cylinders has secured some identifications, but not many. In this almost unexplored field Dr. Bezold brings forward some helpful data, whose importance is all the greater in that they are but the first fruit of a larger harvest. He has found in the Kujundjik collection a number of fragments of texts which describe in detail the appearance, form, drapery and emblems of various divinities—evidently parts of a complete list. Thus far the fragments found are small and very incomplete and Dr. Bezold publishes in the *Zeitschrift für Assyriologie* (1894, March) merely a specimen in order to insure the priority of his discovery. Among others we have the goddess *Bilit* described as carrying a horn, having the body of a woman from her waist upward and that of a snake from the waist downward. *Ea* has the head of a snake, a protuberance on his nose, a stream of water issues from his mouth, etc. The goddess *Iriskigal* has the two horns of a gazelle, one in front and one back, the ear of a lamb and the hand of a man: with both hands she carries food to her mouth: she lashes her body with her tail, etc. Then a male type is described (*Nergal*?) with bull's

horn, a man's face, wings and the body of a lion, standing on his four feet. The divinity (name gone) next described carries the heaven with both hands and with his right foot he clutches the earth.

A TEMPLE OF NINA AND BABYLONIAN CHRONOLOGY.—Prof. Oppert has made in the *Zeit. f. Assyriologie* (Dec., 1893) an interesting study of a text published by Hilprecht in his first volume of the results of our American excavations at Nippur. The gist of the inscription is that a king of the second dynasty, Gulkisar, had consecrated in the xx or xix century a piece of land to the cult of the goddess conventionally called Nina. Seven centuries later, a prefect of the province of *Bit-Sin-magir* had laicized the property, annexing it to his province. The priest of the fraternity, charged with the supervision of the sacred domain, obtained from King Belnadinabal the restitution of the land. Apparently the worship of the goddess "Nina" had during the course of these centuries fallen into disuse. She is associated here with the god of the Abyss and to her support are called the god of the Divine House, the god of the Universe and the cabbalistic name of the Divine Prince.

In the opinion of M. Oppert the chronological deductions from this document are exceedingly important, and after a discussion, into which we cannot here enter, he draws up the following chronology of Babylonian Kings on the basis of his deductions.

Nebuchadnezzar.....	17 years.....	1155-1138.
Bel-nadin-abal.....	6 ".....	1138-1132.
Anarchy during which there were		
5 unknown Kings.....	4 ".....	1132-1128.
Marduk-nadin-akhe.....	22 ".....	1128-1106.
Marduk-nadin.....	1 " 6 m.....	1126-1124.
Marduk-sapik-zir.....	13 ".....	1124-1091.
Nabu-sadunu.....	9 ".....	1111-1102.

CORRESPONDENCE OF THE AMENOPHIS.—Like so many Assyriologists, M. Halévy has taken a hand at translating the Correspondence of Amenophis III and IV, and is publishing a transcription and translation, thus far without commentary, in the *Revue Sémitique* for 1893 and 1894.

BAGDAD.—**ANTIQUITIES.**—The direction of the Imperial Museum of Turkey has taken all the necessary measures for the careful transference to Constantinople of the slabs and sarcophagi found in the excavation at Bagdad. The assistant-director of the museum, now residing in Bagdad, has been put in charge of the matter. The Bureau of Public Instruction has been informed that the Director of Public Instruction in Bagdad has in his possession various Assyrian archaeological objects, such as rings, carved precious stones, silver coins, etc.,

which were seized when in the hands of certain persons who were sending them out of the country. The Bureau of Instruction gave order to the local authorities to despatch these objects to Constantinople.—*Erría*, Oct. 31.

TELLOH.—It is reported from Turkey that in the excavations at Telloh ninety-six tablets in good condition and an inscribed marble have been found. The only description is that the tablets are of terracotta. The excavations, which were begun in March, are being continued.—*Athenæum*, May 19.

PERSIA.

ORIGIN OF PERSIAN ART.—Mr. W. St. C. Boscawen has a note in the *Babylonian and Oriental Record* (March, 1894) in which he suggests a solution of the difficulty regarding the origin of Persian art: or, he should rather have said *sculpture* instead of *art*. The resemblance to and dependence on Assyrian art is indisputable. The only difficulty has been that the Assyrian cities are known to have been in ruins long before Persian sculptors began their work. How, then, was the connection made? Mr. Boscawen says:

"The solution of the problem, I believe, is to be found in a civilization little known, but which exercised a powerful influence upon the Persians, viz., that of the old Armenian Kingdom of Van. The kings of Van came into contact with Assyria during the reign of Asurnazirpal (B. C. 885). At that time they did not possess the art of writing, but, wishing to place records of their reigns upon the rocks near their capital, employed Assyrian scribes to cut the inscriptions for them. The inscriptions of Sarduris I, the son of Lutipri, who reigned B. C. 833, are written in Assyrian, but in a few years the scribes of Van had added the Assyrian syllabary to their own tongue, and we have inscriptions written in the Vannic speech, which presents some affinities with the Georgian. In the reign of Argistesa, contemporary of Sargon II (B. C. 722) the intercourse between Armenia and Assyria was very close, and we find the Armenian artists reproducing in bronze many designs taken from the sculptures at Khorsabad and Nimroud. The British and the Berlin Museums possess many specimens of the work from the great temple of Khaldis, the Armenian national god at Toprak-kalah on Lake Van. In the winged bulls we have artists working to an Assyrian design and producing exactly the same curious male proportioned forms which we afterwards get at Persepolis. In the same way the lions on the shield of Agistis in the British Museum are exactly similar to the figures on the throne of Senacherib, and served as the model for the throne of the Persian kings. Assyrian art remains were not accessible, but their second-hand repro-

ductions in somewhat distorted forms were to be obtained in the palaces and temples of the old Vannic princes."

[This suggestive note seems to indicate the right solution of the difficulty. At the same time other elements must be considered. (1) The *Elamite* monuments which preceded the Persian on the same ground, and which came under strong Assyrian influence at the time of Assurbanipal's conquest; (2) The *Hittite* monuments of the Assyrian type. As has been proved by the excavations at Sinjirli, Hittite monuments became during the eighth and seventh centuries thoroughly Assyrianized, in the same fashion as those of Armenia. Therefore, while not denying Armenian influence in the least, it is quite possible that Assyrian forms found their way into Persian art also through local traditions and the peoples of Upper Mesopotamia and Syria.—Ed.]

A PERSIAN INSCRIPTION.—To Mr. H. E. M. James, Commissioner in Sind, the British Museum is indebted for a paper cast of a curious inscription kept as a great treasure in a shrine on Khwajah Khizr Island, opposite Rohri, on the Indus, and jealously guarded from the gaze of the vulgar. The inscription consists of a Persian couplet, which reads as follows:

Chu ín dergáh i válá shud huveidá—ki áb i Khizr dáred der javáni,
Khizir bá khatt i shírín der nivishteh—peí táríkhesh ez dergáh i 'áli.
"When this noble structure shone forth, endowed with the water of
Khizr in [perennial] youth,
Khizr, with graceful script, inscribed for its date the words 'dergáh i
'áli' (lofty shrine)."

In Persian poetry Khizr, the ever-living saint, is always associated with the water of immortality, and in the valley of the Indus he is an object of worship alike to Hindus and Mohammedans. Capt. (the late Sir Richard) Burton in his work on Sind gives an interesting specimen of the Sindhi hymns, in which Khizr is invoked as the tutelary deity of the mighty stream. The Hijrah year 341 (A. D. 952), expressed by the above chronogram *dergáh i 'áli*, and engraved in Arabic figures underneath, is a very early date for the erection of his shrine. On whatever authority it may rest, the above inscription is no contemporary evidence. Its character, an elegant Indian Nestalik, can hardly be earlier than the seventeenth or sixteenth century.—*Athenæum*, June 16.

This inscription is further noticed in the *Athenæum* of June 23.

ASSYRIA.

DISCOVERIES AT MOSSUL.—There is a report from Mossul of the discovery of cuneiform inscriptions and a colossal female statue. Father

Scheil, who is superintending excavations at Bagdad, has been sent by the Imperial Museum to Mossul to examine the statue. The Museum authorities, who used formerly to devote themselves chiefly to Greek antiquities, have now attached Father Scheil to their staff for cuneiform.—*Athenæum*, June 9.

SYRIA.

TWO SEMITIC INSCRIPTIONS OF SINDJIRLI AND THE SEMITIC BELIEF IN IMMORTALITY.—M. Halévy takes the occasion of the publication of the first fasciculus of the German *Ausgrabungen in Sendschirli* in the *Mittheilungen aus den Orientalischen Sammlungen* (xi) to give his view of the language and contents of the two principal inscriptions. A preliminary memoir is published in the *Revue Sémitique* for Jan. 1893. It treats of the inscription of Bar-rekûb, son of Panammu, vassal of Tiglath-pileser (745-727 B. C.) and of the inscription of an earlier Panammu, who reigned some hundred years before and was almost contemporary with Mesha of Moab. M. Halévy's second memoir—far more satisfactory than his first—was read before the *Acad. des Ins.* on Feb. 10 and March 3, 1893.

In the publication of the Berlin Committee the artistic and archæological part was confided to Dr. F. von Luschan, who was really the prime mover in the excavations. The philological part was divided between Prof. Schrader, to whose share fell the Assyrian inscription of Asarhaddon, and Prof. Sachau, who publishes the inscriptions in Phœnician characters.

The excavations were conducted in the spring of 1888, the winter and spring of 1890 and the winter of 1890-91. During this time the expedition had the good fortune to purchase in the neighborhood four ancient statues, one with a Semitic inscription—that of Panammu I. The excavations at Sindjirli itself yielded not only the fine statue of Asarhaddon but two statues with Semitic inscriptions belonging to Panammu II, son of Rekûb.

In regard to the language of the inscriptions M. Halévy seems to be alone (which does not trouble him) in sustaining the Hebræo-Phœnician character of the idiom of Northern Syria in which they are written, while Sachau is upheld by Nöldeke and D. H. Müller in his opinion that the language is archaic Aramæan. However, in Halévy's opinion the ethnographic and linguistic question becomes almost subsidiary in view of the great interest of the inscription of Panammu I for the reality of the belief among Semitic peoples in the immortality of the soul. M. Halévy divides his study into four sections: (1) text with comment and translation; (2) the Hittite language; (3) Hittite history; (4) Hittite-Semitic mythology. We will

here summarize his conclusions, for, however much discussion there may at times be in regard to M. Halévy's caution, there can be none as to the vigor and clearness of his views. What he says is worth listening to. The inscription begins:

"I am Panammu, son of Korul, king of Ya'di, who has erected this statue to Hadad, lord of heaven (?). Hadad, El, Resheph, Rekubel and Shemesh have assisted and led me and . . have given me the sceptre of his majesty(?) Qorul had consecrated land and a . . to the gods, but Hadad did not give to his house the power to build, but in my majesty he at once placed the knowledge to build; then I erected structures and set up this stele to Hadad and the place of Panammu, son of Korul, king of Ya'di is with him. In the future, Panammu my son will take the sceptre and sit on my throne and make a feast to his warriors and will offer sacrifices(?) to Hadad . . and will mention the name of Hadad. Then he who is there will say: 'Let the soul of Panammu drink with thee,' and the soul of Panammu will drink with thee. And at once he will again mention the soul of Panammu with Hadad and Rekubel . . in this sacrifice, and Panammu will make him acceptable thereby to Hadad, El, Rekubel, Shemesh" The inscription goes on to say that, if the name of Panammu is not thus mentioned on such festal occasions, the soul of Panammu will drink with Hadad all the same, but Hadad will reject the sacrifice and inflict a curse.

The second inscription says: "This stele was erected by Bar-rekub to his father Panammu, son of Barsur, king of Sam'al." It goes on to tell of the misfortunes of his father, the assistance given by his suzerain, the king of Assyria, Tiglathpileser, whom he accompanied to several wars, in one of which he died near Damascus. His body was brought home and this stele erected over his tomb.

Two further inscriptions in archaic characters were found, which belonged to king Bar-rekub. These are recognized by M. Halévy to be in an Aramaic which is the same as that of the Book of Esdras except that the sibilants have not yet become dentalized. Under the heading *The Hittite Language*, M. Halévy takes up the question of the two dialects thus used under the same king Bar-rekub. He regards the Aramean fragments just referred to as merely an official language used by the Assyrian administration, while the other dialect, which he terms Hebræo-Phœnician, is the native idiom of the kingdom of Ya'di. In his opinion, the Semitism of this region carries with it the Semitism of the regions of Syria south of Ya'di—such as Karchemish, Arpad, Halman (Aleppo), Patin, Beth Adin, &c. Consequently, he concludes: "the linguistic homogeneity of all the Hittite land, from the Amanus to the Euphrates, and from Lebanon to Sam'al,

may be confidently admitted, and this circumstance authorizes us to call the language of the Sam'al region simply the Hittite language, without excluding the possible and even probable existence of local variations." This Hittite language belongs to the Hebræo-Phœnician family: the Assyrian administration introduced into it, slowly but with increasing force, Aramaic forms and words which gradually drove out the corresponding native words, until, shortly after the annexation to Assyria in 721, it disappeared to be replaced by Aramaic.

In his study of Hittite history M. Halévy goes back as far as the time of Sargon I (3800 B. C.) and makes ingenious use of the Babylonian documents. He is especially interesting in tracing the phases of the relations of the Hittites to Egypt, and the slow expansion of the Hittite power southward after a repulse from the land of Mitanni in the XVI century B. C. He lays particular stress on the Semitism of the Hittites, a fact announced by him as early as 1886 and now quite generally accepted. Then follows a study of the relations of Assyria to the weakened and divided Hittites and the application by the Assyrians of the name of *Sam'al* to the kingdom of *Ya'di*.

Under the title *Hittite Mythology*, M. Halévy studies the gods Hadad, El, Rekubel, Resheph, Shemesh and Or. Of these, Rekubel and Or are new in the Semitic pantheon, and the latter, as a personification of light, is especially interesting. To these should be added the *Kabiri* who are acolytes of the god Resheph. M. Halévy has a strong personal interest in that part of the inscription of Panammu I which takes for granted the immortality of the soul. He states here how, 22 years ago, he started the controversy in his memoir on the inscription of Eshmunazar, king of Sidon, in which he summarized the Phœnician doctrine as follows: (1) the soul is immortal; (2) the souls of the just inhabit heaven in company with the gods. His thesis was violently opposed by MM. Renan and Derenbourg, according to whom the belief in the immortality of the soul was of Platonic origin, was incompatible with the unadulterated Semitic genius, and could not have existed among the Semites until the time of Alexander. In 1882, M. Halévy made use of the Babylonian documents descriptive of Hades to support his theory, but was opposed by Oppert, who sustained that these ideas were the property of the non-Semitic Sumerians and were unknown to all Semitic races outside of Babylonia. This denial of a belief in immortality is made, of course, to apply to the Hebrews. Now in the inscription of Panammu I it appears (1) that the place of his soul is with the god (Hadad); (2) that the soul accompanies the supreme god even in the sacrifices made to him, and acts as intercessor; (3) that souls "participate in the nature and the privileges of the gods whose habitual *cortège* they form." M. Halévy shows the substan-

tial eschatological agreement in this belief of the four great Semitic peoples—Assyro-Babylonians, Hittites, Phœnicians and Hebrews. In an appendix he compares the Greek and Semitic terms and opinions concerning Hades and its inhabitants.—HALÉVY, in *Revue Sémitique* for 1893 and 1894.

PALESTINE.

JERUSALEM.—NEW EXCAVATIONS.—The chairman of the Palestine Exploration Fund announces that Mr. Frederick Bliss has opened ground at Jerusalem. His instructions were to take up the "Rock Scarp of Zion," and to trace it eastwards in accordance with the description of Josephus. The excavations already made disclose the continuation of the Scarp, with unexpected chambers, passages, stairs, and mosaic pavements, of which it would be premature to attempt any explanation.—*Academy*, June 23.

MESOPOTAMIA.

NOTES FROM THE EUPHRATES VALLEY.—Mr. Hogarth writes from Malatia, May 17, 1894: "Now that we are about half-way in our journey from coast to coast by way of the Euphrates valley, it may interest some readers of the *Athenæum* to know how our archaeological exploration has fared.

"After a delay at Tarsus and Adana, due to bad luck and officialdom, we started about a month ago and came straight to Aintab. There is little to record of the road so far. We examined carefully the ruins of Mopsuestia, where the double sites on both banks of the Pyramus show much still above ground, and copied several inscriptions, including a milestone of Valentinian. After crossing the Amanus, we spent a day with Drs. von Luschan and Koldewey at Zinjerli, seeing the different palaces and the medley of monuments, Assyrian, "Hittite," and old Semitic, which that extraordinary mound is yielding up to the spade. The harvest to be reaped in the Zinjerli plain is far from exhausted yet. There are two other mounds upon it in every way similar to Zinjerli itself, from both of which sculptures have been obtained already; and Dr. von Luschan urges strongly the necessity of excavating both. Any one who can obtain the necessary funds will have Dr. von Luschan's cordial co-operation, and in all probability find monuments not less notable than those obtained from Zinjerli. Aintab proved to be a mine of small "Hittite" antiquities, seals, axe and chisel heads, cylinders, and scarabæi, whence obtained I could not learn satisfactorily. One small stone boss, engraved on the two sides with figures of a god and a mortal, accompanied by hieroglyphic legends, is worthy to be compared with any "Hittite" treasure in any

European museum, and several other pieces are of exceptional interest.

"From Aintab we made for the Euphrates, and struck the river at Khalfat. At Samsat, we spent two or three days in the miserable village which now represents Samosata. The ancient city lay immediately about the castle mound, and its limits are still to be seen. The modern village appears to occupy the situation of the legionary camp. We found an altar and two tiles inscribed "*Legio XVI Flavia Firma*," and a few other inscriptions, but the site is not prolific. I made a copy and impression of the rudely inscribed and much decayed Hittite *stele* which lies near the castle, but, not having Humann and Puchstein's book with me, cannot tell whether I have improved in any way on their publication.

"The most remarkable relic of ancient Samosata is undoubtedly the great aqueduct by which water was brought some twenty miles from the Kiakhtha river into the town. The stream flows mainly through tunnels, but is carried on arches across the mouths of numerous ravines running down to the Euphrates. These bridges are very massive, and present the appearance of having been strengthened at a period later than that of their first erection by masonry built within the arches. It must be owing to them that an idea prevails that on the Euphrates the Romans defended their frontier by walling up the mouths of the lateral ravines. We followed the aqueduct to its junction with the Kiakhtha, and, after fording the river with great difficulty and some danger, made our way up to Kiakhtha, abandoning, owing to the height of the tributary streams, the project of following the right bank of the Euphrates through the Taurus. Some of the party reached the same place by way of Adiaman, visiting on the way the site of Perre, about two hours distant from that town.

"Kiakhtha lies near two relics of antiquity, each unique in its way: the famous monument on the Nimrud Dagh, and the great Roman bridge over the Kiakhtha river. The latter has been used ever since the time of Vespasian, and nothing but powerful explosives could ruin it now. Seen either from the roadway, where the massive balustrade and inscribed columns and tablets are before the traveller's eyes, or from below, where the full magnitude of the single arch, 70 ft. high and 115 ft. span, can be appreciated, this magnificent monument of Roman rule, still intact in a wild glen on the extreme limit of the empire, must make a strange impression on any beholder. It carried beyond question the great military road from Melitene through the Taurus to Perre and Samosata, and, indeed, the roadway can be seen running from the eastern end of the bridge up into the mountains. This military highway did not, therefore, take the Adiaman-Besne-

Pulat pass, as has been supposed, but a more easterly line, probably that of an easy path still much used as a route from Adiaman and Kiakhta, which goes by way of Birmishe and Bekiakr to Malatia, in about twenty hours from the bridge.

"Under the inscription of Julia Domna on the Kiakhta bridge is a long-erased text of which I made out a letter here and there, agreeing with the formula of Vespasian. Even without that evidence the probability would be all in favour of that emperor being the original builder of this great bridge in the country which he was the first to reduce to the status of a province. The *stelæ* of Septimius Severus and his sons, which are also on the bridge, and the honorific dedications by the four cities of Commagene to Caracalla and Julia Domna, point to the same fact as the milestones on the Cæsarea-Melitene road, viz., that an important reorganization of the frontier was made at the end of the second century. Arrived here we were at once told on all sides that a stone five thousand years old had been found a few days back at Ordasu, on a mound called Arslan Tepe, about three miles distant from the site of Melitene. We were taken to view it at the Government House, and there, sure enough, lay a most notable "Hittite" relief with a text in raised symbols running along the top. The scene is a lion hunt; an unmistakably "Hittite" archer, standing in a chariot, draws an arrow to its head. A driver guides a spirited horse, beside which is a dog. In front ramps a great lion, already pierced with a bolt, looking back at his pursuers. The scene is in a sunken panel of white limestone, admirably preserved. Two fragments of another panel were found at the same time, on which a woman sits opposite a goddess, a cross-legged table of offerings being between the two, while on the right is the hinder part of another chariot, in which stands a man in the act of drawing an arrow from the quiver at his shoulder. We shall visit Arslan Tepe before we leave Malatia; there can be no doubt that it is the site of yet another "Hittite" mound-palace, similar to those of Eyuk and Zinjerli, and it is interesting to note that it supplies a missing link on the line of the road from Central Cappadocia, which descends the Tokhma Su, by way of the "Hittite" monuments of Gurun, Palanga, and Arslan Tash, to the Euphrates. The absolutely similar character of these widely scattered "Hittite" mound-palaces of Syria and Asia Minor, and the unmistakable identity of the art displayed on their reliefs, is a very remarkable and significant fact, which is gradually forcing itself into a prominent place in the field of ancient history."

Mr. Hogarth's second letter is dated Trebizond, June 21: "The cholera, of which we had heard rumours when I wrote from Malatia, proved fact, and consequent quarantine cordons interfered consider-

ably with our journey. Nevertheless, we accomplished our main object, the exploration of the actual valley of the Euphrates as far north as Erzinjian, and of the Roman frontier up to Trebizond.

"Very little remains of works of defence. Even in localities which can be certainly identified, such as Zigana (=Ziganna of the 'Notitia'), Zimarra, or Melitene, the station of Legio XII Fulminata, there is no fort or camp now discernible. Near the junction of the Palu Su and the Murad Su, the two main streams which unite to form the Euphrates, we found remains of a fort which may have been Sabas, and near Pingan of another; but little enough is left of either one or the other. Only at Satala are there any considerable remains. If any doubt ever existed that the site of that city was at Sadagh, in the district of Kelkid, we can effectually remove it. In that village we found half a dozen tiles inscribed LEG XV, or LEG XV A, or LEG XV APOL, besides six other Latin inscriptions and a dozen Greek. Needless to add that the identification with the standing camp of Legio XV Apollinaris and the subsequent Byzantine bishopric of Satala admits of no question. The ground plan of the city walls, with towers forty paces apart, is well preserved on the north and east sides of the *enceinte*, and can be traced without difficulty on the west. On the south the modern village has obliterated everything. The latter is built entirely of old stones, and but few fragments of the ancient edifices within the walls have been spared. We made a complete plan of the site, and collected as far as possible the small antiquities in the possession of the villagers. The spot where the bronze head of Aphrodite, now one of the glories of the British Museum, was found, is well known to the natives, and many survive who remember the discovery. The actual finder was still alive when we visited the village, but at the point of death. All told one consistent story that the head and hand only were found, in the process of making a threshing floor, and that nothing had ever been seen of the rest of the statue. I made inquiries also in Erzinjian and elsewhere in the neighbourhood with the same result. The story which has been related of the finding, hiding, and subsequent mutilation of a complete statue is pure fiction.

"The most disappointing, and at the same time most singular thing about the frontier remains is the paucity of traces of a military road. Of an actual roadway we found no certain trace at all; paved tracks are to be seen on the hills both north and south of Keban Maden, and not far south of Egin, but of later than Roman date. Not a milestone did we find in the Euphrates valley, with one single exception, two miles from Melitene on the road to Sebasteia. If it were not for the remains of bridges over the Angu Chai and the Kara Budak, we could say that we had found nothing certainly Roman between the Taurus

and Satala. Only abutments remain of the bridge over the Kara Budak, one of the most important of the right-bank tributaries; but on the rock hard by is cut an inscription of the Emperor Decius, from which we learn that the stream was known, like our own Severn, as the Sabrina.

"We have seen too much of the valley with our own eyes, and asked too many questions of the natives, to have missed an existing road. While milestones or traces of an ancient roadway have been found on all the lines of communication with the West, *e. g.*, Satala-Nicopolis, Nicopolis-Sebasteia, Melitene-Sebasteia, and Melitene-Cesarea, no such traces remain along the actual frontier line. Looking to the mountainous character of the Euphrates valley, again and again narrowing to a mere fissure with rocky walls, backed by snow-clad peaks, it is impossible to suppose that an ancient road can ever have run down its entire length. The two bridges which we found are situated some distance up the tributaries, and the roads approaching them must have been carried over the hills. Such roads, however, we must infer to have been little more than tracks, unpaved and unmeasured; the emperors contented themselves with bridging the unfordable tributaries, and connecting only the legionary camps with the interior by means of military *chaussées*. The apparent inadequacy of such a scheme of works to have defended so long the Eastern frontier of the Empire would not occur to any one who had seen much of the Euphrates itself. An absolutely unfordable river, flowing at a rate of seldom less than five miles an hour, in one long succession of dangerous rapids, never less than two hundred yards, and often quite a mile broad, emerging from one frightful gorge only to enter another, is a natural barrier, needing but a very thin line of human defence.

"We visited Tephrike, the modern Divrik, but found no relics of Paulician times. The magnificent Seljuk mosque there possibly contains older material, but for the rest Divrik is new. Kemakh, once the great frontier fortress Camacha, has more to show; the modern town has descended to the riverside, leaving the Byzantine city to fall to ruin on its perch above. Not only the walls and fortifications but even the streets can be easily traced; the town must have been one of the strongest in the ancient world, built as it is entirely on the broad top of an isolated crag, rising sheer on all sides two hundred feet. No approach is possible except by zigzags or steps cut in the face of the rock. We were unable to find any epigraphic evidence *pro* or *con* the proposed identification of Camacha with Theodosiopolis; but at least we can say that there is no reason whatever from existing remains to suppose that the latter was at Erzinjan, or, indeed, on any site in this neighbourhood other than Kemakh. Of the geographical results of our journey I hope to give an account shortly."—*Athenæum*, July 14.

ASIA MINOR.

ARABIC EPIGRAPHY IN ASIA MINOR.—We have already had occasion to refer to the mission confided to M. Clement Huart by the French Ministry of Public Instruction. M. Huart visited Asia Minor in 1889-90 for the purpose of studying the monuments of the Seldjuk period. In a paper contributed to the *Revue Sémitique* (1894, Jan. and April) M. Huart publishes, translates and comments on the Arabic inscriptions which he then copied. They belong to the period of the Seldjuks of Roum, the princes of Karamân and Kermiyân and the first Ottoman Sultans. The first are on the route from Brussa to Konya through Kutahiya and Afyûn Kara-Hissar. At In-Eunu is an old mosque with an inscription over its door showing it to have been built in 1369 A. D. under Ali-bey, prince of Kermeyan, by his son. It reads: *The generous, the benefactor, Khodja Yâdikayar, son of Sultan Ali, in the year 771 (=1369 A. D.).* This inscription shows that the Ottoman territory extended but little to the south: probably this town was on the very northern frontier of the state of Kermiyân. The mosque is a square structure surmounted by a dome, preceded by a portico with ancient columns and flanked by a minaret, all of brick.

A long inscription over the entrance to the mosque of Eski-Shehir shows it to have been built in 921 of the Hegira (=1515-16) by Mustafa Pasha, brother-in-law to Sultan Suleiman, who also built the mosque of Guébizê. At Kutahiya an inscription over the door of the mosque called Kurchûn-li Djami shows it to have been erected in A. H. 777 = A. D. 1375-76 by an Emir whose name is mutilated. At the same place and in the same year the mosque called Kal'ê-i Bâlâ was built, according to its inscription, by the Sultan of Kermiyân, Seid Suleiman. Another mosque, the *Yakub-Tehelbi*, was repaired by a jurisconsult named Ishâk in A. H. 837 = A. D. 1433-34. Over the door of another mosque which is considered the oldest in Kutahiya is an inscription saying that it was built by order of Emir El-Ekrem in A. H. 783 = A. D. 1381-2.

At Afyûn Kara-Hissar is the first Seldjuk inscription on the road of Konya, dating from Sultan Ala-eddin Kai-kobad I. At Tshai on an ancient caravanserai a distich records its construction under the Sultan Ghiyath-eddin Kai-Khosrau II and its date is 657 = 1258-9, whereas it is now known that this sultan's reign ended in 644 = 1246, when through his defeat by the Mongols the Seldjuks of Roum became the vassals of the empire of Karakorum. Another inscription over an ancient college-building records its construction by apparently the same sultan.

At *Ishakli* is an imperial caravanserai (Khan) whose inscription states it to have been rebuilt in A. H. 607 = A. D. 1210-11 by the Sultan

Izz-ed-din Kai-Kâûs I, who began to reign in this year and died in 616 = 1219 after an interesting, checquered and warlike career. Over the exterior door of the same caravanserai is an inscription of which we give M. Huart's translation as a sample of the style of this class of documents:

"[Has erected] this structure and blessed caravanserai, in the reign of the magnificent Sultan, great King of Kings, ruler of nations, Sultan of Sultans of the Arabs and Persians, Izz-ed-dunya w'eddin, helper of Islam and Moslems, the victorious Kai-Kâûs, son of Kai-Khosrau, son of Kai-Kobad, the co-partner of the Prince of the Faithful (may Allah make his dominion eternal!), the weak slave, El-Mir, son of him who has need of the mercy of Allah, Boghâ . . . Ali, son of El-Hassain (may Allah give him a good end!) in the year of the Pig of the Oui-gours, the year 647 (= 1249-50)." M. Huart takes the occasion of this text to give an historic analysis of the reign of Kai-Kâûs II, who succeeded his father of the same name in 644, but was soon opposed and his territory dismembered by his brothers Kylydj-Arslan IV and Kai-Kobad II. The arrangement was made an amicable one by the magnates, and the triple rule lasted from 647 to 655, but with intervals of discord.

The articles of M. Huart are to be continued.

BENNDORF'S JOURNEY TO LYKIA.—M. Imbert calls attention to the important historic facts to be gathered from Benndorf's last journey to Lykia, which as yet have not been by any means completely published. He dwells especially on an epitaph found at Port-Sevedo ending with: "The master is hyparch of *Vatapradate*." This is evidently the Persian satrap Autophradates, with whom the king of Persia regained his authority over Lykia.

AUSTRIAN EXPEDITION.—An addition to the archæological parties in Asia Minor this season, already mentioned, is that of Messrs. Émile Sonto and Edward Oula. They will visit Mazin, the ancient Heraclea, Alabanda, Halicarnassus, Mylasa, Stratoniceæ, Lagina, and Mooghla, in Southern Caria, in continuation of the last year's explorations of Profs. Koobichek and Raïchel in Eastern Caria.—*Athenæum*, June 16.

FIDESH.—Excavations are going on at a place called Fidesh, in the caza of Homs, in Asiatic Turkey. They are under the direction of M. Grätier, a French architect, but all objects excavated are to go to the Imperial Museum at Constantinople.—*Athenæum*, June 16.

TURKEY.

CONSTANTINOPLE.—**ADDITIONS TO THE MUSEUM.**—A large collection of Byzantine coins has been purchased, and a catalogue of it is about to

be published. The department of antiquities is to receive more room by the erection of a new wing to receive the sarcophagi and other objects found at Gortyna and the antiquities from Pergamon.—*Athenæum*, March 17.

A department for Mussulman antiquities is about to be opened in the museum. It includes porcelain work from the mosque of Karaman, boxes and other articles inlaid with mother-of-pearl, glass lamps, and Kutahiyeh pottery.—*Athenæum*, Sept. 23.

The new class of Mussulman museums springing up is making rapid development. That at Paris has already acquired importance and is receiving additions. In Constantinople the new department is now put in communication with the Ministry of Pious Foundations, which is securing relics of antiquity in remote or decaying mosques and buildings. At Cairo an earnest effort is being made to save the neglected treasures. Perhaps South Kensington is entitled to the credit of being the first to set the example of cultivating this branch of collection, and possesses some of the choicest objects of Mussulman and Oriental art.—*Athenæum*, Dec. 16.

Among the additions to the museum, to be made soon available to the public, is a library. This consists chiefly of archæological works which are illustrative of the antiquities below. A natural history department on the upper floor is now being classified and arranged.

Formerly there was little for the tourist in the Levant in the way of museums, but now there are those of Constantinople and Athens, well worthy of inspection, and small museums at Smyrna and Syra. The latter, little known, contains some curious Christian antiquities.—*Athenæum*, Feb. 11.

HISTORY OF ART IN TURKISH.—Mehemed Zia Bey, teacher in a school at Rodosto, has written in Turkish "An Art History," and the Sultan has sent him a decoration.—*Athenæum*, Jan. 14.

KERBELEH.—The Sultan has ordered the famous shrine of Kerbeleh to be restored.—*Athenæum*, March 11.

KYPROS.

RECENT ARCHÆOLOGICAL WORK.—Mr. Myres sends the following notes to the *Athenæum* of June 9: "The excavations on behalf of the British Museum, which were carried on at AMATHUS (Palaio Limesso) during the winter, came to an end in March, and the bulk of the antiquities will reach England shortly. Some of the objects found are of considerable interest, but comment must of course be reserved until the publication of the official report. The share which fell to the Cyprus Government will shortly be exhibited in the museum at Nicosia.

"The balance of the Cyprus Exploration Fund was lately handed over to the British School of Archæology at Athens, and it has been found possible to carry out a few small excavations with this help. The first trial was made in the well-known necropolis of AGIA PARASKEVÈ, near Nicosia, with the view of verifying recent statements as to the succession of styles in the primitive pottery there. The necropolis has been already so thoroughly ransacked that very little of intrinsic importance was found, but it became evident that no hard-and-fast line can be drawn between classes of tombs, as the most primitive forms and workmanship are frequently associated with the most advanced. Nor is it by any means clear that the style of the painted vases is always influenced by Mycenæan importations, or by the so-called 'Phœnician bowls.'

"A similar but smaller and poorer necropolis has been discovered and explored near KALOPSIDA, about twelve miles west of Famagusta. The pottery is of coarser workmanship throughout than at Agia Paraskevè, but presents some features peculiar to itself. Imported pottery seems to be rare. Bronze weapons of several types are found—a few of unusual size. Iron is as usual unrepresented, and silver ornaments are very rare. Traces seem to exist of a settlement and pot-kiln associated with this necropolis.

"A few trenches have been opened on a promontory in the *Salt Lake* near LARNACA, which had attracted the attention, formerly, of Colonna Ceccaldi and of Sir Charles Newton. The site, however, proved barren. On the other hand, a mound, also close to the Salt Lake, which seems to have been trenched by General di Cesnola on the advice of Ceccaldi, but of which no adequate account exists, has yielded several more short Phœnician inscriptions—two of them *graffiti* on black-glazed pottery—and the ground plan of a building of uncertain date and purpose.

"Digging still goes on here in the necropolis of KITTON, on the site where the Phœnician inscription, now in the British Museum, was found some twelve years ago. A similar inscribed *stèle* has been found already, built into a Roman tomb.

"Dr. Max Ohnefalsch Richter, whose contributions to Cypriote archæology are well known, has lately returned to Cyprus to conduct excavations at DALI (Idalion) on behalf of the Berlin Museum. Little of importance had been found before digging was stopped by the harvest. Prof. Furtwängler is expected immediately, and work will shortly be resumed.

"The magnificent Gothic church of St. Nicholas at FAMAGUSTA, which has served as a mosque since the Turkish conquest, has been long in need of repair; and it is matter for congratulation that the

authorities of Evkaf (Mosque Estates Commission) are doing what is needful to prevent further damage. The nave vaulting and clearstory walls have been examined and repaired; and the great west window, and the other windows of the nave in which original tracery is preserved, have been cleared of lattice and plaster, carefully strengthened, and filled with cathedral glass. No 'restoration' has been attempted in the windows which have lost their tracery. It is much to be hoped that when the pavement is attended to it will be possible to protect the many valuable inscriptions from the wear and tear to which they are exposed, especially near the doors.

"In this connexion, the appearance of Major Tankerville Chamberlayne's collection of the mediæval inscriptions in Cyprus will make accessible a great amount of hitherto unpublished material, both in text and in commentary. The book is entitled '*Lacrimæ Nicosienses*'; it is written in French, published in Paris (Quantin), and handsomely printed and illustrated. A second volume is in preparation.

"Mr. C. D. Cobham has just finished a third edition of his invaluable '*Attempt at a Bibliography of Cyprus*' (Nicosia, Government Printing Office, 1894). The number of titles has risen from 309 in the edition of 1889 to 497; and new lists of maps of Cyprus and of Consular Reports have been added."

KRETE.

A MYCENÆAN SYSTEM OF WRITING IN CRETE AND THE PELOPONNESE.—Under this title Mr. Evans writes from Candia in Crete a letter of which we reproduce the greater part from the *Athenæum* of June 23, in view of the importance of its statements: "I have just returned to this place after a journey of archaeological investigation in Central and Eastern Crete, the results of which will, I think, be of general interest. The wider object that I had in view was to hunt up the Mycenæan and primæval remains of the island, and in this quest I was rewarded beyond my expectations and even beyond my hopes. Crete, indeed, may be said to swarm with remains of the Mycenæan period, and a six weeks' search, accompanied by somewhat arduous travel, has been sufficient to obtain a knowledge of relics and remains which throw some entirely new lights on the art and religion of the Mycenæan peoples. But on the present occasion I cannot even attempt a summary account of the more general results of my exploration, which include the discovery of two prehistoric cities, as I wish to confine myself to the more special object that I had in view. The special object of my quest was the outcome of a previous find made during a visit to Greece in the spring of last year. On that occasion

I came across some small three and four-sided stones, perforated along their axis, on which had been engraved a series of remarkable symbols. The symbols occurred in groups on the facets of the stones, and it struck me at once that they belonged to a hieroglyphic system. They were, however, quite distinct from Egyptian in character, and, though they seemed to show a nearer approach to the Hittite series, it was evident that they belonged to an independent system. My inquiries resulted in tracing these curious stones to a Cretan source; subsequently, thanks to the kindness of Dr. Furtwängler, I was able to obtain impressions of some similar specimens in the Museum at Berlin, presenting symbols which fitted on to and supplemented the symbols I had already obtained. In this case, too, the source of the stones, as far as it was known, turned out again to be Crete. The impression of a gem taken at Athens some years since by Prof. Sayce supplied another piece of evidence; and I found that an unclassified stone in the Ashmolean Museum, which had been brought back by Mr. Greville Chester from Greece, and noted by him as having been found at Sparta, presented symbols belonging to the same series as the others. The evidence as a whole, however, distinctly pointed to Crete as the principal source of these hieroglyphic forms, and I therefore resolved to continue my investigations on Cretan soil.

"At Candia I obtained a certain clue which led me to examine more particularly the eastern part of the island and the land which to the borders of the historic period was still inhabited by the Eteoeretes, or indigenous Cretan stock, a fragment of whose language in archaic Greek characters has, in fact, been preserved to us in an inscription found on the site of Præsos. On this site, and again from the 'Palæokastro' in the neighborhood of the ancient Itanos, I was so fortunate as to procure two hieroglyphic stones, and I subsequently obtained three more from the same region. Two others found in the same part of Crete are now in the Polytechnicon at Athens; but, although the evidence thus points to this eastern region as the principal source of these stones, they are by no means unknown in other parts of the island, and, amongst other localities, I succeeded in obtaining one from the site of Knosos.

"The total result of my investigations hitherto has been to collect over eighty different symbols. It is difficult to give an idea of many of the types without adequate illustrations, but the following objects may be enumerated among those represented:

The human eye. A bent arm with expanded fingers. A bent arm with curved instrument. Two arms crossed, with open palms. A human leg with bent knee. A single and double axe. A dagger. A club or sceptre. An arrow head and other uncertain implements. A spouted vase and another with a high beak. Trel

lis-work or fence. A door or gate. A ship. A primitive lyre (apparently developed from a horn bow). The head of a wolf with his tongue hanging out (also Hittite). Deer-horns. The head of a bull, of a goat, and (apparently) of a bird. A pig and a kid. Birds. Fish, perhaps tunny. The jaw of an animal. Stars of four, eight and revolving rays. A double crescent. Two concentric circles with central dot. An S-shaped symbol. Floral and vegetable forms derived from lily, etc. Loop and knot-like symbols, crosses and other geometrical designs.

"There is no question here of the mere copying of Egyptian hieroglyphs by workmen ignorant of their true signification, as in the case of a well-known class of Phœnician objects. Neither have we here to do with the adaptation of Hittite symbols. Although, as was to be expected, certain objects represented in the Cretan stones—such as the eye and leg, the single axe, and the heads of certain animals—are common to the Egyptian or the Asianic systems, the whole character of the present series shows that it is, in the main at least, of independent development. Certain fixed principles, moreover, are observable in the arrangement of the symbols in the several groups. Some objects are found only at the beginning or end of the columns. Others occur in the same juxtaposition on different stones. We have here to do with a very different class of objects from the merely supplemental figures found in the field of certain Mycenæan gems of lentoid or amygdaloid form, gems which, as we now know, served the purpose not of seals, but of ornamental beads worn round the wrist or neck. In the case of these gems the objects in the field are inserted as the space left by the principal design suggests, and are simply due to the *horror vacui* of primitive art. But there is every reason to suppose that the faceted stones with their regularly arranged groups of symbols served the purpose of seals, and were, as it were, the angular contemporaries of Babylonian cylinders.

"The form of the three-sided perforated stones goes back in Crete to a very early period, and certain gems of this form with rude designs, which must be regarded as the immediate precursors of the 'hieroglyphic' series, belong to the age which immediately preceded the development of the typically Mycenæan art, and which in Ægean archaeology may best be described as the 'Period of Amorgos.' The remains of this period—including the primitive marble idols that characterize the Amorgan deposits—are well represented in Crete. A very interesting series of objects of this class recently found at Phæstos, and evidently representing the contents of a small group of tombs, have been deposited in the extremely interesting little museum that Cretan patriotism has founded at 'Heraklion.' Amongst these I noticed some indications of the highest chronological importance, the presence, namely, of several Egyptian scarabs belonging to the twelfth

dynasty, and, as a *terminus a quo* in the other direction, a painted vase, the technique of which showed that it was more or less the contemporary of the vases of Thera. The data thus supplied indicate roughly 2500—1800 B. C. as the period covered by the Phæstan deposits, and among them occurred some triangular steatite gems of the kind which I have already indicated as the immediate predecessors of those presenting the hieroglyphic symbols. In some cases, indeed, what appear to be the most primitive examples of the symbols themselves are found on stones belonging to this early period. On the other hand, there is distinct evidence that the fully developed class of hieroglyphic seals comes well within the limits of the Mycenaean period of Cretan culture. This is borne out by the occurrence of a more globular variety of the triangular stones with Mycenaean figures, and the further existence of a peculiar class of stones, the back of which has a spiral convolution, the outgrowth of a double-shell ornament of the 'Amorgan period,' on which symbols belonging to the present series alternate with purely Mycenaean designs.

"But this Mycenaean system of writing passed through another phase besides the more pictographic stage with which I have been hitherto dealing. On some of the three- and four-sided stones of the class described the symbols take purely linear forms, though their shapes can in some cases be clearly traced to their pictorial prototypes. I have procured stones with inscriptions of this class from Præsos and the Siteia district, but they are by no means confined to this eastern region. Another was found on the site of Knosos, and linear characters of the same class occur beneath a characteristically Mycenaean engraving of an eagle, on a remarkable amethyst jewel of heart-shaped form, also found at Knosos. And, in the case of these quasi-alphabetic forms, I have been able to trace the extension of the system to other objects and materials. Whilst exploring the ruins of the prehistoric city of Goulas, which in extent and preservation far surpass those of any other city of the Mycenaean world, a most remarkable piece of epigraphic evidence came across my path. A peasant who had a little cultivated patch immediately below the walls of the northern acropolis pointed out a spot where he had recently discovered close together three ancient relics, which he handed over to me. One was a Mycenaean intaglio of cornelian, the chief design of which was a two-handled cup, the copy, no doubt, of a golden original. The second was a terracotta ox of a type common in late Mycenaean deposits throughout the island, and approximately dating from the tenth century B. C. The third object was a clay cup of the same period, exhibiting a *graffito* inscription of three alphabetic characters. From a village near this site I obtained a vase with two more *graffito* symbols belonging to the

same system, one of them the double axe-head of the hieroglyphic series reduced to a linear form. Nor is it only on seals and ceramics that this early system of writing makes its appearance. On a bronze double-axe I found engraved a linear reduction of the dagger symbol of the hieroglyphic series. Certain symbols had already been observed, by Mr. Stillman and others, on the gypsum blocks of a prehistoric building on the site of Knosos, which may or may not have been the 'labyrinth' of classical tradition, but which, from the painted fragments found in some of its chambers in the course of a partial excavation by Mr. Minos Calocherinos, of Candia, unquestionably belongs to the best period of Mycenaean art, and approximately, as is shown by the strikingly similar fragments found by Mr. Petrie in the palace of Khuenaten, to the fourteenth or fifteenth century B. C. Of these symbols, which have been set aside as mere masons' marks, I made a careful study, and find that, though there need be no objection to describing them as 'masons' marks,' the marks themselves, like those on the Phœnician walls of Eryx, are of alphabetic character, and fit on to the same system as those on the pottery and seals. In several cases, indeed, they occur not singly, but in groups of two, and here again the double axe-head reduced to linear form plays a prominent part. One feature I noticed of especial interest—the occurrence, namely, of a symbol which may be described as a square with three prongs, identical with one that recurs on one of the two vase-handles presenting mysterious signs found in Mycenæ itself. I do not hesitate to say that these Peloponnesian examples fit on to the same (probably syllabic) system as the Cretan.

"In another direction these early alphabetic forms of Crete find some equally striking parallels. Several of them recur among the signs on the potsherds found by Prof. Petrie at Gurob in a deposit assigned by him to the period of the twelfth dynasty, and again at Kahun amongst eighteenth-dynasty relics. The Cretan evidence, indeed, supplies a remarkable confirmation of Mr. Petrie's views as to the extremely early date of some of these symbols. As already stated, the relics from the prehistoric graves of Phæstos show that already in the days of the twelfth dynasty there must have been a direct contact between Egypt and Crete. The earliest of the triangular stones with hieroglyphic signs belong to this period, and among the Phæstos deposits there occurred a green steatite of perforated and rudely whorl-shaped form, presenting characters so remarkably alphabetic that it is difficult at first sight to believe in their extreme antiquity. They are, however, accompanied by a rude design of an animal, executed by the same hand as the linear signs, which unquestionably belongs to a very archaic period of Cretan art. From Siphnos, again, I have a stone of

the same kind engraved with similar characters, the style and material of which carry it back to the same early period. The alphabetic forms of the Cretan symbols are found, moreover, on some triangular and quadrangular stones belonging to the same age as others with purely pictographic signs. This phenomenon makes it necessary to speak with caution as to the relation in which the linear forms stand to the more purely pictographic. It is evident that though typologically the pictorial characters are the earlier, and though in several cases the more alphabetic types obviously represent 'hieroglyphs' reduced to linear outlines, there was a distinct overlapping of the two classes. In the case of many of the characters of the linear style the parallelism with Cypriote forms is most striking. That several of these Mycenaean characters are identical with those of the Cypriote syllabary is certain; on the Goulas cup, for example, the Cypriote *pa* and *lo* occur in juxtaposition. On the other hand, as in the case of the third symbol on the same vase, there are several characters of the Cretan series which are not found in the Cypriote as at present known to us. It is unfortunate that our knowledge of the Cypriote syllabary begins so late.

"But it is not in Cyprus only that the Mycenaean system of writing shows points of contact with the monuments of later Greek epigraphy. Prof. Halbherr, who is now in Candia, has made to me the valuable suggestion that some of the characters brought to light by the present investigation have influenced the forms of certain Greek letters found in the most archaic Cretan inscriptions, while in other cases they seem to have actually survived as marks of division. The *o* with the concentric circle and dot found on the early inscriptions of Lyttos, and a form of *eta* peculiar to Eleutherna, seem to be instances of the first phenomenon, while the operation of the second is attested by the appearance of the double-axe symbol as a mark of division both at Lyttos and in the great inscription of Gortyna.

"To resume. The evidence supplied by these Cretan finds shows that, long before the time when the Phœnician alphabet was first introduced into Greece, the Ægean islanders, like their Asianic neighbours, had developed an independent system of writing. Of this writing there were two phases, one pictographic and much resembling the Hittite, the other linear and distinctly alphabetic in character. This latter system was certainly a syllabary, in part at least identical with that of Cyprus, perhaps, indeed, its direct progenitor. There are indications that both these systems extended to the Peloponnese, though Crete seems to have been its chief centre, and there can be little doubt that they were made use of by such members of the Hellenic stock as came within the range of 'Mycenaean' culture. I do not think that it is too much to say that the *σήματα λυγρὰ* of Homer are here before us."

GORTYNA.—PRESERVATION OF THE GREAT INSCRIPTION.—The inscription of Gortyna, found in 1884, is exposed not only to the stress of weather and to the destructive action of the water of a canal which passes over it, but even to the more serious danger of being destroyed by an ignorant or malicious hand. To save this inscription by transporting it to a safe place, the Greek Syllogos of Candia invites the aid of scholars. To buy and transport it will cost about 10,000 fr. The Syllogos will invite to Crete a capable workman to make a cast of the inscription, and to each museum which contributes \$100, a cast of the entire wall which contains the inscription will be delivered, free of expense, at Brindisi, Trieste, Genoa, or Marseilles.

The Syllogos may be addressed through its president Dr. Joseph Hazzidakis, or its secretary Prof. S. Xanthoudidis, at Candia.

EUROPE.

GREECE.

THE BRITISH SCHOOL AT ATHENS.—The presence of two Cabinet Ministers at the annual meeting of the subscribers to the British School at Athens, held July 12, in London, may raise hopes, in those who are interested in archæological research, that aid may be given from public sources to the school, so as to place it on an equality of means with the French, German, and American schools, especially as Lord Rosebery has given £200 out of the Royal Bounty Fund.

The hon. secretary, Mr. George A. Macmillan, read the report of the managing committee for 1893-4, which stated that, though the number of students was rather below the average, and the one piece of excavation undertaken, (on the site of Abai) was hardly so fruitful as had been expected, the school had held its own, and had attracted more pecuniary support than in any recent session. After a short account of the work of Mr. A. G. Bather, Mr. E. F. Benson, Mr. J. L. Myres, Mr. V. W. Yorke, Mr. D. G. Hogarth, Mr. E. R. Bevan, Mr. Gilbert Davies, and Mr. Arkwright, the report said that the site of Abai, in Phokis, was chosen for excavation after very careful consideration. It was famous for its oracle, and reference was made, not only by Pausanias, but by Herodotus and Sophocles to the oracle, the fortress, and the temple of Apollo. The indications on the spot seemed full of promise, but after some three weeks' work, carried on in very severe weather, the excavators succeeded only in laying bare the plan of the temenos, with a temple, a *ναυσκος*, and a stoa. The whole place must have been sacked, for of sculpture only a few late fragments were discovered, and a few inscriptions, mostly of Roman date. Some bronze bowls of early technique were the only artistic product of much

importance. On the adjoining site of Hyampolis some inscriptions were found, but nothing else of consequence. Mr. Benson had made an encouraging report on the prospects of archaeological discovery at Alexandria, but for this purpose there were not anything like adequate funds. There was, however, an active archaeological society in Alexandria itself, which had already done no small amount of work with very limited funds. Arrangements had happily been made to prolong the services of the director, Mr. Gardner, whose college fellowship and Craven studentship had expired, and who would, in the absence of further aid, have been obliged to resign. But by the efforts of Mr. Egerton, the British Minister at Athens, and others, the committee had been able to reappoint Mr. Gardner for one year only at a salary of £500. A special fund was being privately raised to meet the additional expenditure, and most opportunely a grant of £200 had been made to the school by Lord Rosebery from the Royal Bounty Fund.—*London Times*, July 12.

DEME-LEGENDS ON ATTIC VASES.—Mr. Cecil Smith read a paper at the meeting of the *Hellenic Society*, on Feb. 20, on "Deme-Legends on Attic Vases." When, in the sixth and fifth centuries B. C., a Pan-Athenian genealogy was forming at Athens, the vast multiplicity of local and private cults became merged in the orthodox beliefs; but many a deme probably cherished quietly the remembrance of its local hero, and of these less-known cults we may expect to find traces, especially in the homely art of the vase-painter. A vase in the British Museum of about B. C. 500 represents one such scene. It shows a youth departing from an old man, his dog carrying in its mouth the thigh of an animal. This is the story of Diomos, the eponymus of the deme Diomeia. Hesychius and Suidas relate, *s. v.* "Cynosarges," that Diomos was sacrificing, when a dog seized the thigh of the victim; the hero was told to follow the dog, and where the dog laid down the thigh there to set up an altar to Herakles, hence the name Kynosarges ("white dog" or "swift dog"). The old man in the scene is Kolyttos, the eponymus of the adjoining deme Kolytteia, and father of Diomos. Possibly the painter himself belonged to the deme Diomeia. That vase-painters were partial to their own local legends we see from the frequent occurrence of Akamas, the eponymus of the tribe Akamantis; the name of this tribe is twice mentioned on vases, and is the only one so found; it was the tribe to which the potters' quarter belonged. On the celebrated Kodros cup we have the principal type of scenes which became frequent in the fifth century B. C., and which were intended to illustrate the legendary history of the great Attic families and tribal divisions. The Meidias hydria has one such scene which has hitherto escaped notice; it has been called a scene from the

"Argonautica," because of the presence of Medeia, and of a seated kingly figure inscribed Α....Σ, who has been called Aietes. The name, however, clearly reads Akamas; Medeia is the Attic heroine of that name who occurs (in Phrygian dress also) on the Kodros cup; and among the other figures are Antiochos, Hippothoön, and Oineus. We thus have on the Meidias vase the eponymi of no fewer than four of the twelve tribes, Akamantis, Antiochis, Hippothoöntis, and Oineis, amongst whom Akamas, as the special hero of the potters, holds the pride of place.—*Athenæum*, Feb. 25.

HARPIES IN GREEK ART.—Mr. Cecil Smith read at the *Hellenic Society*, on Feb. 20, a paper entitled "Harpies in Greek Art." By a confusion of ideas it is still constantly asserted that the Greek harpy had sometimes the body of a bird, like a siren; this error has arisen from the fact that in the adaptation of Greek myths to Roman ideas these two types in Roman times had exchanged rôles, the siren reappearing as a draped woman, the harpy as a bird-woman. Throughout Greek art proper the type of harpy is invariably a winged woman, and therefore the famous "harpy tomb" from Xanthus is wrongly named; the bird-women on this tomb are really sirens, performing functions akin to those which we usually see on Greek sepulchral monuments. Through all Greek times harpies are associated with the idea of wind, of great speed, and disaster; the Homeric idea is indeed in this myth, as in others, a fault in the stratification; here their number is not stated, they are associated with the idea of the snatching of death, and this death is regarded as inglorious. Probably, with the later modified notion of death, the harpies retained only the repellent part of their character, and were consequently no longer regarded as sepulchral. Hesiod makes them two in number, Aello ("Stormwind") and Okypete ("Swift-flyer"); and from other passages we see that the myth wandered throughout the Peloponnesus, the Ægean, and up to the Hellespont. One of the earliest representations of them on vases is a cup of Kyrenæan fabric, which shows us the Hesperid Kyrene; on one side of her fly several bearded figures (Boreades) as if to protect her from the harpies on the opposite side. It looks as if this phase of the myth, in which harpies and Boreades are opposed in an allegorical nature-symbolism, had grown up at Kyrene, or at any rate on the north coast of Africa: here the north wind coming from the sea assists vegetation, the wind coming from the desert destroys it. The trade relations of Kyrene would account for the localities over which the myth wandered; in its more northern home, however, the myth required modification, inasmuch as there the beneficent character of Boreas is not so obvious, though the harpy still remains the parching south wind; hence in the Hesiodic theogony (which corresponds with Peloponnesian types of

art) the harpies have for their sister, not another wind, but Iris the rain-giver. Meanwhile, the traditional type of opposing Boreades and harpies passed on into the Phineus legend, but with its old significance as a nature-symbolism lost; the only instance of its direct connexion with nature-symbolism is the Würzburg cup. This cup has on one side the Boreades driving away the harpies (both represented exactly as on the Cyrenæan cup) from the food of Phineus; on the reverse, Dionysos, Seilenoi, &c.; the whole being an allegory of the joyful reawakening of Nature after the expulsion of the forces hostile to her. The symbolism of nature is an idea specially at home in Egypt and the adjoining countries; for this reason, and considerations of technique, the Würzburg cup may be attributed to one of the Græco-African colonies. The same contrast of ideas is found on a situla from Daphnæ. On the obv. side is the archaic snake-legged figure of Boreas among plants and foliage; on the rev., a figure which is certainly a harpy; beside the harpy are shown a locust (*Acridium peregrinum*), and a vulture and two carrion crows attacking a hare. The locust is frequently found on coins and vases, as symbolizing the destruction of vegetable life; the birds represent the destruction of animal life. A parallel usage is found on the vases of "Cæretan" fabric, which have already been attributed to Egyptian influence. The association of the carrion crow and vulture as destructive agents is traceable all through art, from the early reliefs, in which they devour corpses on a battlefield, downward; the latest example is on a patera of the third century A. D., on which they are still associated with the land of apes and negroes.—*Athenæum*, February 25.

ABAI (PHOKIS).—EXCAVATIONS BY THE ENGLISH SCHOOL.—The somewhat disappointing excavations carried on here during the past season by the English School were briefly described at the annual meeting of the subscribers to the British School, to our account of which we refer the reader.

This sanctuary was the seat of one of the principal oracles of early Greece, and is mentioned by Sophocles (*Edipus Rex*, 899) in a passage which seems to imply that it ranked with Delphi and Olympia as an important centre of worship. The oracle was consulted by Croesus and Mardonius, and according to some authorities was even older than Delphi. The site of the temple was recognized by Leake; and the remains now visible, though probably belonging to a later restoration, undoubtedly determine the situation of the ancient structure, which was destroyed by the Persians. Many antiquities are said to have come from this site; and a promising indication is supplied by Herodotus, who states that the temple was richly endowed with

votive offerings. In addition to the excavations at Abai, researches will be carried out by the British school in Cyprus and Asia Minor.

AIGINA.—The Athenian Archæological Society has decided to undertake excavations in the island of Aigina, on the site of the ancient temple famous for the pedimental sculptures now in the Glyptothek of Munich. From Aigina came the rich golden treasure recently acquired by the British Museum.—*Athenæum*, July 7.

ATHENS.—**GREEK ARCHÆOLOGICAL SOCIETY.**—The Archæological Society of Athens—which since the transference of its collections to the Greek Government has been occupied in revising its statutes, with the idea of putting itself on a new basis, introducing public sittings, and founding a Greek school after the fashion of the foreign archæological schools at Athens—has decided to undertake operations at Dipylon, near Hagia Triada. The new excavations will be a valuable continuation and completion of the previous ones, which led to the discovery of such beautiful sepulchral ornaments. In the new explorations the little church of the Hagia Triada will be demolished.

PARTHENON SCULPTURES.—At the meeting of the *Hellenic Society* on Feb. 20, Mr. A. H. Smith read a paper "On Recent Additions to the Sculptures of the Parthenon." The objects described by the author were: (1) The torso of a boy, recently identified by Herr Schwerzek as belonging to the west pediment. The writer pointed out some of the difficulties connected with Prof. Furtwängler's theory that the group to which the torso belongs is Oreithyia with Zetes and Kalais. (2) A lamp in the British Museum, hitherto unpublished, with a new rendering of the contest of Athene and Poseidon. (3) The head of a Lapith from one of the metopes. This head was found in the recent Akropolis excavations. It cannot be actually fitted to any of the metopes. (4) The head of Iris from the central slab of the east frieze. (5) A new fragment of the group of old men on the north frieze, in agreement with Carrey's drawing. (6) The upper half of the armed warrior who accompanies the first chariot on the north side. In connexion with this group the writer discussed the comparative merits of Stuart and Carrey, and pointed out that the extant remains of Stuart's papers (*Brit. Mus. Add. MSS.* 22,152, 22,153) seemed to prove that the faults in Stuart's plates were largely due to the engravers. He called attention at the same time to a statement in the papers named that Stuart had given a volume of his drawings to Anthony Highmore, of Canterbury (1719–99), and suggested that if these papers could be traced they would probably be of value.—*Athenæum*, Feb. 25.

ROMAN BATH.—In a piece of ground (belonging to a Corinthian landowner named Rhendis) not far from the ancient Lechæum, excavations undertaken comparatively recently brought to light an old building

with a floor of mosaic and eighteen marble columns, as well as a relief with the head of Medusa. The Commissioner of the Government who has been sent to the spot believes the structure to be a Roman bath. The proprietor of the land, on the other hand, holds himself to have discovered an ancient temple. It is to be remarked that behind the tablet bearing the relief stands a Christian cross.—SP. LAMBROS, in *Athenæum*, June 23.

DR. LOLLING'S DEATH.—Greek archæology suffers an irreparable loss in the death, on February 23, of Dr. Lolling, for the last ten years director of the department of inscriptions in the National Museum of Athens, editor of Baedeker's "Greece," and, since 1879, librarian of the German Institute in Athens. He excelled most in epigraphy, and the Greek government fittingly recognized his astonishing achievements in this field by making him custodian and editor of the enormous body of inscriptions which the eager excavations of recent years have brought to the central museum at Athens. His catalogue of these inscriptions, a work involving enormous and ingenious labor, is well advanced in MS., though only the first part, on votive inscriptions, is published. Many American scholars remember gratefully the unselfish kindness of this modest, sad man, and regret that attainments and achievements such as his should have been haunted by a sense of defeat and failure.—*N. Y. Evening Post*, March 26.

DELPHI.—TRANSLATION OF THE HYMN TO APOLLON.—We give here the French adaptation of the Greek text, by Reinach and D'Eichthal, as it was sung in Paris :

"Dieu dont la lyre est d'or, ô fils du grand Zeus, sur le sommet de ces monts neigeux, toi qui répands sur tous les mortels d'immortels oracles, je dirai comment tu conquis le trépied prophétique gardé par le dragon, quand de tes traits tu mis en fuite le monstre affreux aux replis tortueux. . .

"O muses de l'Hélicon aux bois profonds, filles de Zeus retentissant, vierges aux bras radieux, venez par vos accents charmer le dieu Phébus, votre frère à la chevelure d'or, le dieu qui sur les flancs du Parnasse, parmi les belles Delphiennes, sur la roche à double cime, monte vers le cristal pur des eaux de Castalie, maître étincelant du mont à l'ancre prophétique.

"Venez à nous, filles d'Athènes, dont la grande cité, grâce à Pallas, la déesse au bras vainqueur, reçut un sol ferme, inébranlable. Sur les autels brille la flamme qui des jeunes taureaux consume les chairs; vers le ciel monte l'encens d'Arabie; le murmure des flûtes sonne en chants modulés, et la cithare d'or, la cithare aux doux sons, répond aux voix qui chantent des hymnes.

"O pèlerins d'Attique, chantez tous le dieu vainqueur."

KALAURIA.—As already mentioned, the Swedish Government has asked permission of the Greek Government to excavate the Temple of Poseidon, on the island of Kalauria (the present Poros). This is the temple in which, according to the ancient account, Demosthenes took poison in 322, when pursued by the player Archias, the emissary of Antipater. Dr. Wide will superintend the work. The ruins, which lie on a height about half an hour's walk from the convent of the Mother of God, hardly rise above the surface of the ground, but are of considerable extent; and since they lie apart from modern dwellings and out of the way of traffic, on a little visited island, it is hoped that the excavations may lead to good results.—*Athenæum*, June 23.

KOPAÏS (LAKE).—In continuation of our notes on Kopaïs in the last issue, we will add that Dr. Alfred Philippson has an article on the topography, horography, geology, climate and history of Lake Kopaïs and its neighborhood in the *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, XXIX, 1, 1894. In the historic section of this careful study (*Die Geschichte des Sees und seines Gebietes. Die Versuche zu seiner Austrocknung*) the author gives an account of the successive attempts to limit and dry the lake, both in pre-historic times by the Minyans and in historic times.

The Minyan works consisted briefly of the following: Three canals were carried from W. to E. through the lake, one on the left (northern) shore, the second on the right (southern) shore, the third through the centre. The system was most skilfully planned, and led the waters to "Katavothren" or subterranean outlets on the West, which were at that time sufficient to carry away all the water. During the entire historic period Kopaïs was a periodical lake, at its highest in winter, and in summer either very low or entirely dry but for some swampy parts which were at the four corners. Many cities arose around it, but none rose to great power, and the fever-giving air was always a drawback.

It was in the time of Alexander the Great that Krates of Chalkis undertook to re-establish the efficiency of the Minyan works by clearing out the subterranean outlets. Philippson denies that there is any proof that Krates executed the great works of the historic period which have been attributed to him by most modern writers on the score of the passage in Strabo (ix. 2. 18). He says: "Es sind uns also keinerlei Nachrichten überliefert, aus welcher Zeit die gewaltigen Arbeiten stammen, die wir auf den Isthmen, welche die Kopaïs vom Meer trennen, bewundern. Diese Arbeiten bestehen: 1. aus einer Reihe von Schächten auf dem Joch von Larymna; 2. einem offenen Einschnitt auf dem Isthmos von Muriki zwischen Likeri und Paralimni; 3. einen offenen Einschnitt auf dem Isthmos von Anthedon.

Keine dieser Arbeiten ist vollendet worden. Während das Werk No. 1 die unmittelbare Ableitung der Kopais zum Meere bezweckte, bilden No. 2 bis 4 Glieder eines anderen Projektes, nämlich den Kopais-See zum Likeri-See abzuleiten, diesen bis zu einer gewissen Höhe ansteigen und dann zur Paralimni überfließen zu lassen, worauf diese dann in einer gewissen Höhe zum Meer überfließen sollte."

Thus while both the Minyans and Krates designed merely to dry the lake by carrying the water out through the natural subterranean outlets, these latest works were designed to use the water to increase the two lakes of Likeri and Paralimni and to carry it across the fertile Theban plain, thus using it for fertilizing purposes. It is quite probable that it is to one of the Roman emperors that the unfinished project is due.

The study of Philippson closes with an account of the lake in mediæval and modern times, and gives at the end a good list of the literature of the subject. It is accompanied by a good map.

ITALY.

PREHISTORIC AND CLASSIC ANTIQUITIES.

THE INHABITANTS OF THE TERREMARE AND THE GROTTA OF FRASASSI.—Prof. Brizio takes occasion of a study of three moon-shaped vase handles (*anse lunate*) of the prehistoric age to make some interesting remarks on the age and relations of different groups of the early Italic population.

The grotto of Frasassi is in the province of Ancona and contains remains showing it to have been inhabited in the neolithic age. In opposition to Pigorini, who believes the handle found in this grotto to be much later in date than those of the terremare and to belong to the iron age, Brizio shows that all the fictiles of this grotto have nothing in common with those of the necropoli of Picenum but present the closest analogies to those found in the stations called terremare. In doing this he brings forward newly discovered examples and makes a detailed comparison with objects from the terremare, showing that the people that dwelt in the grotto must be connected with the inhabitants of the terremare. He adds: "The fact is that we now know in Italy more than twenty-five stations—caves or huts (*fondi di capanne*)—which not only yield lunar-shaped handles, which occupy a minor place in the ceramics of the terremare, but also hundreds of fragments of vases of all qualities (fine and crude) and of all forms, such as the terremare also furnish in abundance. These caves and hut-bottoms are scattered over too varied and distant regions of the peninsula, from the Alps to the Terra d'Otranto, to make it possible that in such

early times, in these nurseries of civilization, a single people—that of the *terremare*—could possibly have extended from one end to the other of the peninsula the commerce of vases made by hand, for the greater part rather crude, and that no other people should have formed vases like them. . . . It appears more natural to suppose that several families of the same people, dwelling according to period and local conditions, in caves, in huts and in *terremare*, spread from one end to the other of the peninsula, each one forming its own vases with the paste, the baking, the forms, the ornaments, the handles, with all the elements, in fact, that were characteristics of the ceramics already made by them before they left the valley of the Po to spread over the rest of Italy.—*Not. di Scavi*, 1893, 325-7.

PELASGIC ITALY.—In the February number of the *Civiltà Cattolica*, Padre de Cara pleads for a national effort on the part of Italian archaeologists to solve the question of the origin of their country's civilization by the systematic exploration and excavation of Pelasgic Italy. He holds that this problem has remained so long unanswered because Italian excavations are rather conducted to enrich museums than directed to the solution of the historical problem, and also because of the confused and false conception which is expressed in calling "*Italie*" those peoples, cities, and cemeteries which are neither Etruscan, Roman, nor Greek, only because they are found in Italy. In a series of articles, extending over several years, the learned father has contended for the identity of the Hittites and Proto-Pelasgians on archaeological, etymological, and historical grounds; and he here repeats that, if "*Italie*" means Aryan, then it is among the peoples speaking Oscan, Umbrian, Latin, and other dialects of the Indo-European family that the parentage of Italian civilization must be sought; but that "*Italy*" meant in the first place the country of the Hittites (*Hethi*), and hence of the Pelasgians, and that name and civilization are alike Pelasgic. Those who hold it to have been Aryan have not only the testimony of Greek and Roman writers against them, but also the facts that there were Pelasgians in Italy whose stone constructions are standing to this day, and that the Etruscan language and culture had no Aryan affinities.

The writer further points out that the walls of Pelasgic cities, whether in Italy, Greece, or Asia Minor, all resemble each other, and that the origin of Greek civilization was also Pelasgian. In Greece, as in Italy, the Aryans followed centuries after the Hittite-Pelasgians, and Aryan Greece carried the arts of Pelasgic Greece to perfection. He believes that, of two migratory bands of Hittites, one invaded Greece and the other Italy, about the same time. He also draws attention to the coincidence that it is not very long since Greece, like

Italy at the present time, could date its civilization no further back than 700 or 800 B. C. Schliemann recovered centuries for Greece, but "Italy still remains imprisoned in the iron circle of the seventh century." To break it, she must follow Schliemann's plan; and as he had steady faith in the excavation of the Pelasgic cities and cemeteries of Greece, so will like faith and conduct on the part of Italian archaeologists let in light upon this once dark problem. Light will come from Pelasgic tombs in Italy as from the Pelasgic tombs of Mykenai, the ancient tomb, rightly explained and studied, being the compendium of a people's history; and a single Italian Pelasgic tomb, with its sepulchral furniture, will teach more of ancient prehistoric Italy than all the Roman and Etruscan museums put together.

In 1802, Torcia, librarian to the king of Naples, stated that there were monuments of seventy-five ruined or still inhabited Pelasgic cities in Italy, and many of their cemeteries. Since that time others have been noted. All these remains Padre de Cara would have studied with unity of purpose, combined strength, and efficient means. He proposes, that, in the first place, a congress should be called together of experts, not only in Etruscan, classic Greek, and Roman history and archaeology, but also in Egyptian and Oriental archaeology and ethnography, to discuss the means of solving the problem in question; to examine into the best method of exploring the cemeteries of these Pelasgic cities; and, above all, to draw up a topographical map of all the Pelasgic remains in Italy, be they small or great. This map should note the connexions between the cities, the plans of the city walls, forts, and gates, and pay special attention to the symbolism on the monuments; all this with a view to comparative study of the subject; viz., Asia Minor, Greece, and the islands of the Mediterranean. Tentative and inexpensive excavations would show where the Pelasgic cemeteries of Italy lie. The great expense would only begin with the systematic excavation of one or more of them, and this expense would be amply rewarded by the scientific results. Some Government money might well be diverted from the ordinary Roman and Etruscan excavations to this more interesting end; but, if the Italian Government is unable to assist in the work, Padre de Cara suggests that it should be accomplished by the foreign schools of Italian archaeology.

THE ITINERARIUM ANTONINI.—The text of the *Itinerarium Antonini* is studied by Otto Cuntz in the *Wiener Studien* (xv, 2) under the title *Beiträge zur Textkritik des Itinerarium Antonini* (cf. Kubitschek, *Zur Kritik des Itinerarium Antonini*, in *Wiener St.*, xiii, 1891, p. 177). It is a preliminary to a new text which he is preparing in conjunction with J. W. Kubitschek. Cuntz says: "Ich gebe erstens eine Uebersicht

über die Hauptergebnisse der Nachvergleichung des Escorialensis P und Parisinus D, welche ich im Winter 1891-2 besorgt habe, zweitens eine Untersuchung über die Correcturen, denen die Meilensummen in den Rontenüberschriften unterzogen worden sind, endlich Bemerkungen, über *sic* und die Angabe halber Meilen in P."

A "SABELLIC" OR GNOSTIC AMULET?—Mr. R. Seymour Conway writes: "Among several new Italic inscriptions which I have met with in the last week or two, and which I hope to publish together as soon as I get back, there is one which seems to deserve immediate notice. It is in the so-called 'Sabellic' alphabet, which appears in the archaic inscriptions of Picenum (not yet interpreted), Zvetaieff, 'Ital. Inferioris Insc. Dialecticæ,' 1-8; but I cannot recognize the language as one known to me (not even by dint of reading it backwards). The text is transliterated as follows:—

dubek.ube

t.t.uhe.u

.n.ma.vi

"These letters, then, are written either in the bed of the setting of a large amethyst or on the under side of the stone, in a large gold ring seven-eighths of an inch in diameter, of rough workmanship. The amethyst is an oval half an inch long, and has cut on its upper (*i. e.*, outer) surface a lizard (or crocodile) walking with a small lizard (or crocodile) on its back. I can only conjecture, as an *ιδιώτης* in archaeology, that it must be an amulet of some kind: the position of the letters on the under side of the stone shows they are not a seal, though the lizard may be. The ring was found by Signor Salv. Pascale of Curti, in the necropolis of the ancient Capua, and is at present in his collection."—*Athenæum*, April 28.

In the *Athenæum* of June 23, a communication is printed explaining this as a Gnostic Gem. "It seems to me hardly doubtful that the gem is one of those commonly termed Gnostic, some of which are religious *σύμβολα* or tokens, some mere amulets, while others serve in either capacity. These gems bear to one another a strong general likeness. Their designs are most frequently Egyptian in type, almost universally their legends are in Greek capitals (usually square), and they furnish a text (often designedly unintelligible) which in general seems to be Coptic, or otherwise of some Semitic language, sometimes, in either case, strangely mingled with Greek. Both in text and design the present gem exhibits characteristics similar to those I have sought to indicate.

"1. Design. It seems probable that the "small lizard (or crocodile) on a lizard's (or crocodile's) back" is, in fact, a frog, standing on a croco-

dile, though the lizard itself is a not uncommon device.¹ In my own rather large collection of Gnostic gems I find two somewhat similar in subject to the gem under view, and evidently connected in idea: (1) an amethyst bearing on it a winged frog, seated on a lotus, which rises from a crocodile's back; and (2) a crystal, engraved with a dragon carrying on its back a winged frog; the legend, in both cases, ΙΑΡΒΑΘΑ ΓΡΑΜΝΗΦ ΙΒΑΩΧ ΝΗΜΕΩ. The letters are the usual square Greek capitals, and, as is most usual, read directly from the stone.

"The symbolism in all its fulness forms a subject too large for present discussion, but I may briefly state that the frog is held to be a type of the resurrection to a higher life beyond the tomb, and that the crocodile and lotus are special attributes of the sun-god Horus, to whom most of the talismanic gems appear to have been consecrated. The dragon is the evil ruler of the world, the devourer of the soul not imbued with knowledge (Γνώσις), or, more generally, the great principle of evil. The resurrection and deliverance of the enlightened soul, therefore, and its conveyance to the upper regions through divine power, would seem to constitute the subject of such gems as these. Sometimes, no doubt, like others of the Gnostic class, their symbolism and language were designedly ambiguous, so that at critical times the semi-Christian owner might assign the token of his secret brotherhood to Horus, Serapis, or Mithras, instead of to Christ.

"2. Inscription.—Contrary to the usual practice, this (according to the diagram) is cut reversed on the amethyst, as if meant for a seal. Reading it as it would show in an impression, and dividing the words, the text stands thus:—

P V B E K E V B E
 T □ T □ V □ E □ V
 □ N O M A □ C I

"The first line appears to be in Coptic, a language with which, unfortunately, I have but small acquaintance. Consulting Tattam's 'Lexicon,' we find that BEKE signifies *μισθός*, *merces*, reward. This word occurs as the sole legend on one of my own gems (on plasma), where it accompanies the presentation to Isis of a kneeling worshipper by Anubis, the guide of souls through the perilous paths of Amenti. The idea of reward is also embodied in the common Gnostic legend ΒΑΙΝΧΩΩΩ (Βαι, *præmium certaminis*), 'Reward—secret—honour,' inscribed on gems that probably were the tokens of a victorious endurance of initiation tests and trials. We may, therefore, not unreasonably

¹ The lizard was a type of the *λέγος* and of the sun; on gems it was also a talisman protective of the eyes.

separate the letters that form *βερε*, and assign to that word the sense of reward.

"The Greek TO TOV ΘΕΟΥ ONOMA needs no explanation. To illustrate the use of *Ὀνομα*, I may cite the legend on another of my gems (an eagle grasping a serpent—protective against storms and lightning): EYONOMA IONA YXEPPEI BALBEΘIPPO—which also illustrates the blending of languages on these talismans.

"Mr. King ('The Gnostics,' p. 206) cites two Gnostic legends exemplifying the use of the word *Ὀνομα*—META TO ONOMA TOY MON ΘΕΟΥ, and META TO ONOMA TOY CΑΡΑΙIC (Serapis).

"If, apart from talismanic uses, a conjecture might be hazarded regarding the spiritual meaning of the legend on the present gem, I should suggest that it either expressed its owner's desire to be rewarded by salvation through the name of God the Redeemer—'the price of redemption' (or, alternatively, of Osiris), or his boast that he sought no other reward than to bear the name of that divine being—recalling the Mithraic initiatory formula, when the neophyte cast to earth a crown and a sword, exclaiming, 'Mithras is my only crown.' The design on the obverse, as I have sought to show, would harmonize with these readings of the legend, for it figures resurrection to life through the aid of an all-potent god."—SOUTHERSK, *Athenæum*, June 23.

LATIN HISTORICAL INSCRIPTIONS, ILLUSTRATING THE HISTORY OF THE EARLY EMPIRE.—This work by Mr. Rushforth is of unusual interest and value, and we know of nothing quite like it in character and scope, for Mr. Hicks's excellent 'Manual of Greek Historical Inscriptions,' to which Mr. Rushforth refers in his preface, is more epigraphical in its character, while this little collection of inscriptions is more elementary on the epigraphic side, and more definite and limited on the historical side. It contains a hundred inscriptions of the years between 29 B. C. and 79 A. D., selected as touching on important points in the constitutional history of the empire from Augustus to Vespasian; and various other inscriptions are incidentally referred to and quoted in part. The real importance of the work, however, lies on the historical side. We know no other book which can be compared with it in value as an introduction to Roman imperial history, in the sense in which it is understood and studied in modern times. The book contains no history of persons or campaigns; it rarely alludes to, and never does more than allude to, the "great events of history" under the early emperors. It quotes the inscription of Ticinum enumerating the family of Augustus, but treats it only as a first step in the development of a divine household or imperial family. But it would be difficult to mention any factor in the growth of municipal or political institutions, in the organization of Rome, Italy, and the provinces,

in the development of communication between the parts of the empire, in the formation of the great standing armies and camps, in the creation of a state church as a political device to bind the empire into a unity, which is not here treated in a suggestive and luminous, though very brief way. We observe, indeed, no reference to Seneca, the only private citizen of the early empire who exercised a strong and permanent influence on the imperial policy; but probably many may disagree with our belief in the importance and weight of Seneca's influence on the government of his time; and Mr. Rushforth might on various grounds object to the inscription which we should like to include. We should also like to see some reference to the development of Christianity as a political influence.

The book is, of course, one for the student, and not for the *dilettante* who wishes to get in an attractive and simple form the views of a modern scholar about Roman history. It takes the student direct to the original authorities, leads him to think over them and weigh them for himself. Further, it is not for the mere beginner in history; it presupposes a knowledge of the ordinary political, dynastic, and personal history of the time. To bring out the real interest that lies latent underneath its facts, much additional knowledge is required. It is an invaluable collection of well-selected and well-ordered facts for the use of the student who is ready to give the time and work necessary for a real understanding of imperial history. Especially it seems to the present reviewer to fill exactly the place which he has found empty: it is the ideal book to place in the hands of students while they are attending a course of lectures about the period with which it deals, and listening to a more literary exposition of the topics for which it supplies the most useful materials.—*Athenæum*, July 22.

PUBLIC ROMAN FUNERALS.—This subject is treated for the first time exhaustively in a treatise by Frid. Vollmer, *De funere publico Romanorum*. A *funus publicum* was an official funeral, not one merely to which the public was invited, as Guhl and Koner (*Life of the Greeks and Romans*, p. 590) thought. It was at the public expense, of a costly nature, and stopped public business. The origin is in the *funus collaticium*, paid for by voluntary contributions, or by burial societies, or from the military exchequer. When the state paid the expenses through the *quæstor*, acting under the instructions of the *consul*, who was obeying a *senatus consultum* made for the purpose, then the *funus* became strictly *publicum*. Toward the end of the Republic the state not only paid the expenses, but undertook the whole management of the funeral, including the eulogy by a magistrate and often a place of burial, but never the erection of the monument itself—except in case of the emperors—nor any cult of *manes*.

They were often accompanied by games, *ludi*. The order of the ceremonies was as follows: *expositio corporis mortui (vel imaginis) in foro, contio totius populi praesentibus ordinibus senatorio et equestri virorum et mulierum, pompa militum, imaginum comitatio amplificata, laudatio a magistratu habita, portatio mortui per honoratos viros, agmen magistratum et pontificum, ludi militares circa rogum, incensio rogi per magistratus*. There was a *iustitium* and mourning by the women for a year. Women were not so honored until the time of Augustus.—*Classical Review*, June, 1894.

S. ANGELO IN VADO.—**ARCHAIC NECROPOLIS.**—In well-tombs in this neighborhood there have been found at various times, without any regular excavation, objects that prove the existence here of a very ancient necropolis, regarding which it is premature to report anything definite. Thus far there have been but few fictile vases or objects in copper: ostensibly nothing but bronzes have been found.

It is noted that many casual discoveries of Roman and pre-Roman antiquities and sculptures have been made in this vicinity at various times during the last fifty years.—*Not. d. Scavi*, 1893, pp. 320-24.

AREZZO (NEAR).—**AN ANCIENT ROAD AND ARETINE POTTERS.**—Prof. Gamurrini has made for many years so careful a study of that most interesting of Roman potteries—Aretine ware—as to have become the one authority on the subject. He expects to publish a thorough treatise on this subject in the *Monumenti Antichi* of the Academy of the Lincei, and in the meantime he has often promised to write a brief but comprehensive account for the *JOURNAL*—which we do not yet despair of obtaining. He has a short note in the *Scavi* (1894, p. 48) on a Roman road near Arezzo, which gives so interesting a glimpse of the names, factories and relations of some of the Roman potters that I shall give here almost a translation of it.

"In speaking of the ancient manufacture of pottery of Publius Telli, established at the bridge called Ponte a Buriano, on the Arno (*Notizie*, 1893, p. 138), I noted that from this point there branched off two roads on the right of the Arno, one following its course toward Florence, the other rising toward the Casentino . . . The ancient road from Arezzo reached Ponte a Buriano, passing by Galagnono. On the opposite bank, near the bridge, Publius Telli established the manufacture of red vases in relief in about the time of Sulla. Then came Publius Cornelius and took possession of it, employing the same workmen. Soon, however, the manufactory and workmen were transferred to Cincelli, less than a kilometre away on the road along the Arno. This road had its beginning at the bridge itself, and at the bifurcation was an aediculum, built apparently with only two Corinthian columns in front, as is shown by a remaining capital. Its position leads us to believe that, as usual, it was dedicated to the Lares compitales.

"Hence it proceeds, skirting the hill of Cincelli, then called *Centumcellae*, as we know from mediæval documents. On its slope and on the road, opposite the Arno, worked Publius Cornelius, who was certainly a *libertus* of Sulla, who came with the Cornelian colony to Arezzo. But it so happens that before him or at the same time there was here another potter's establishment held by Caius Cispus. I incline to the belief that for some time they were partners in this business, at least on this site, because only at Cincelli do we find on vases the name of Cispus combined with that of Publius Cornelius. That a close connection and common interest existed between these two families is shown by the letter of Cicero to the proconsul Quintus Valerius, where he recommends to him a certain Publius Cornelius: *P. Cornelius, qui tibi has litteras debet, est mihi a P. Cuspio commentatus* (*Famil. XIII. 6*). This passage may also show the period at which their factory flourished.

"After having adduced many arguments to prove that the Aretine vases were made and distributed in Rome and through the Roman world from the time of Sulla to that of Augustus, we can now bring forward another manifest proof of this fact. The engineer Vincenzo Fungini, in exploring anew the pottery factory of Cincelli, has found many remains of that of P. Cornelius, and among them a small decorated cup signed *RODO*, who appears to have been one of the last workmen of Publius Cornelius. On it is four times repeated the impress of a medal with the head of the young Augustus, with the inscription *AVGVSTVS*, the medal being placed between two leaping dolphins. This refers to the assumption of the title of Augustus two years after the naval victory of Actium in 723 U. C., a victory symbolized by the two dolphins. This date is extremely important for the history of the Aretine vases, for it fixes the period of their decadence, because before the disappearance of the Cornelian manufacture, the Rasinian, Memmian, Perennian and Tellian factories, which produced the most delicate and exquisite works in relief on their table vases, had already ceased to exist."

Above Cincelli the ancient road bifurcated, one branch following the Arno toward the Abbey of Capolona=*caput leonis*: the other proceeds to Pieve S. Giovanni (a *fundus* of the Sulpicii), passing by *Casa rossa*, where there appears to have been another manufactory of vases not yet explored. From the *pieve* the main road leads to Apia, which preserves its ancient name, of Italic or perhaps Pelasgic origin, for Apia in Arcadia was the Pelasgic centre. Below Apia are some remains, and several tombs have been found, but it is not known to what period they belong. Prof. Gamurrini found a Roman uncial as of the second century B. C. From Apia the road turned to the right

through Busseto=Buxetum, a *fundus* of the Valerii, where two beautiful cinerary urns of this family, belonging to the first century of the empire, were found in 1654. The road proceeds through Casa Vecchia, Palazzo (*Palatium*) and Sorboli. At this latter place was lately found the bone handle of a knife of remarkable interest. At the end is carved a draped female bust with a headdress high over the front, like that of the Empress Sabina—a portrait of her time, and perhaps even representing the Empress herself, as it was then often the custom to repeat on objects in use the portraits of the rulers. Hence the road seems to pass under Vezza (on its left), Bibbiano (= *Vibia* ?), Ponino, an Etruscan site, and Belfiore, below which tombs of the second century of the empire were found. The last two places are in the *prædium* Voconianum, now the *piève* of Vogognano. Near this are the remains of an ancient bridge over the Arno. Leaving the bridge on the right the road proceeds to Talliano.

"The distance that we have traversed between the ponte a Buriano (where was the Tellian factory) and Telliano is about ten kilometres, and all along we have met property belonging to Roman families. First the Aburia, then the Cornelia, Sulpicia, Valeria, Bebia, Tilia, Voconia, Laurentia, and Tallia. Did these properties, almost all fertile and delightful, come to them through the Sullan or the triumviral colonization? It is difficult to say. What is perfectly clear is that through the Aretine fields the edict was proclaimed, *veteres migrati coloni*, and Italy, after those fatal civil wars, belonged no longer to the Italians, but to the Romans alone."

BOLOGNA (NEAR).—NEW ITALIC TOMBS DISCOVERED IN THE PROVINCE.—The *Scavi* report (1893, pp. 315-19) recent discoveries of tombs in the province of Bologna.

I. *Prunaro*.—A number of tombs of the Villanova type, badly explored by ignorant peasants, so that the greater part of the contents were broken. They belong now to Major Olivetti.

II. *S. Giovanni in Persiceto*.—On two occasions there were found at a short distance from this town a number of objects of the Villanova type, although no tombs were found, either intact or violated. One of the groups of objects belonged certainly to a feminine burial.

III. *Toscanella Imolese*.—The objects discovered here were found in black earth, the tomb or tombs having disappeared. The objects of especial interest are: (1) a so-called bronze *tintinnabulum* with two spherical ends, all in open-work, with fifteen triangular, rectangular or lozenge-shaped holes in which red amber is inserted; (2) a bronze mace of the same open-work technique.

IV. *Monte Castellaccio Imolese*.—V. *San Lazzaro*.—These two places are mentioned in connection with objects found some time since. At

San Lazzaro the objects found prove the existence of a station of the stone age.

BOLOGNA.—**EXCAVATIONS DURING 1893.**—At Bologna some excavations have been in progress since the month of April on a plot of ground situated outside Porta St. Isaia, about 600 metres to the left of the road, in which part of a necropolis has been brought to light, and about seventy tombs had already been explored up to June. Most of the burials were after cremation, and a few only by inhumation of the Villanova type. Numerous grave goods were obtained. Amongst them we may enumerate the *dolia* and the ossuaries which characterize that period, together with many bronzes, consisting of *situle*, *ciste*, *fibule*, knives, razors, horse-bits, &c. A novel discovery, however, was that of a small bronze chariot, the only object of the kind in the museum of Bologna. In digging in the direction of the Certosa, the workmen came across a trench, upon the character of which two opinions were immediately formed, some thinking that it was the boundary ditch of the necropolis of the Villanova type, at a certain distance from which ought to be found the Etruscan necropolis; others, on the contrary, thinking that it was a mere channel for waste water. Further excavations may throw more light upon the subject.—*Athen.*, Aug. 5, 1893.

CAORSO (NEAR).—**TERRAMARA ROVERE.**—About 14 kil. east of Piacenza, in the commune of Caorso, and traversed by the road called *della Rovere*, is a terramara which is the westernmost of those in the province of Emilia. It should be called the terramara of *Rovere di Caorso*.

It was discovered in 1865 during the construction of the present road, but was not scientifically known until 1877, by means of Count B. Pallastrelli. Scientific excavations here were entrusted to Sig. L. Scotti, who made some essays in 1891 and serious excavations in 1892. The results are published in the January number of the *Scavi*. The methods followed were those employed recently by Prof. Pigorini in his epoch-making excavations at the terramara of Castellazzo di Fontanellato in the province of Parma.

Without entering into the details of the excavations, it may be said that they were completely successful and showed this prehistoric station to be in the form of a trapeze, 150 m. long on the east, 170 on the west, 135 on the south, and 130 on the north. It has a surface of 20,640 square metres, but the part reserved for habitation comprised only 12,870 sq. m., the rest being given up: to the encircling ditch; to the dyke, which descends toward it on a gradual slope, while toward the interior it presents a vertical face; to the retaining wall (if we may use the term) or *contrafforte* which supports it. These three elements of defense have the same dimensions throughout: the ditch is dug 1.50 m. below the original level of the surrounding country, and is 10 m.

wide; the dyke has a base of 5 m.; and the *contrafforte* is 1.50 m. wide.

The plan of this *terramara* confirms the fact demonstrated by Prof. Pigorini in his monograph on the Castellazzo *terramara*, that the *terremare* present the essential characteristics of the Italic cities—quadrangularity and orientation.—*Not. d. Scavi*, 1894, pp. 3-9.

CAGLIARI (SARDINIA).—VOTIVE TERRACOTTAS.—The lagoon of Santa Gilla near Cagliari has yielded further votive terracottas. There were 327 pieces brought up during the last campaign. Of these there were 36 entire and 8 fragmentary masks; many fragments of hands and feet; heads of panthers, dogs, dragons; large and small amphoræ, vases, dishes, lamps. It is supposed that these are part of the stock in trade of ancient dealers, kept on a bridge defended by palisades. It is also concluded that there was here a manufactory of terracottas. The age is difficult to determine, for while the fictiles are of the Phœnico-Punic type, those representing parts of the human body present Græco-Roman art.—*Not. d. Scavi*, 1893, pp. 255-58.

CAPANNORI (ETRURIA).—AN ETRUSCAN TOMB.—Further work for the drying up of the swamps on the site of the lake of Bientina, between the Serchio and the Arno, has led to an important archaeological discovery which confirms Ghirardini's contention that Pisa belonged to the Etruscans, as against the general opinion that Pisa and its neighborhood had never yielded monuments of Etruscan character.

There had been an attempt made to dry up this alluvial swamp in 1853 and the following years by Grand Duke Leopold II, but with only very partial success. Since then partial works have been carried on by the civil engineers of the province of Pisa. In the course of some work during 1892 on the rivulet called Ralletta, connected with the upper part of the main emissary, the workmen came across a stone which covered a large terracotta vase containing a smaller vase, with burnt bones and several gold objects. It was one of the tombs for combustion called *tombe a ziro*, met with already in the earliest necropoli of the Villanova type, but found also in specifically Etruscan necropoli of later date. The vase is a red-figured amphora, and has on one side Theseus killing the Minotaur, represented in a highly interesting and original manner, though the figures suffered from barbarous treatment at the hand of the ignorant discoverers. The other scene is probably from the life of Herakles.

The jewelry is of considerable interest. There are: a pair of earrings, many pieces of a necklace, eleven fibulæ and a pin. All are made of very thin gold leaf, decorated in relief with stamped designs: this fact is all the more evident that the eleven fibulæ are all of exactly the same design. The earrings are of the kind called a *baule*, that is, the

body is formed of a cylinder open at the top, closed on the front by a circular plaque or disk surmounted by a fancifully-shaped top-piece filled with a lotus derivative such as surmounts some proto-Ionic capitals. Finally one side of the cylinder is surmounted by a round-topped plaque with a gorgon-mask. The decoration is extremely rich, delicate and harmonious, (Fig. 1) and the type is like that used by Helbig (*Hom. Ep.* p. 273) to illustrate the form and decoration of the

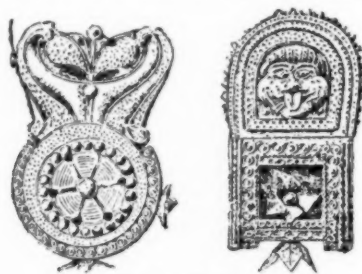


FIG. 1.—EARRING FROM TOMB, CAPANNORI.

Homeric earring. Such have been found in a tomb of the VII cent. at Vulci, of the VI at Cervetri and Corneto, of the V at Orvieto, Bisenzio and Bologna. The main difference is that in these specimens at Bientina only the stamped and stippled decoration is used, no filigree and grain-work such as is found in the other examples of this type. There are features in the form and decoration, also, that make these unique—such as the roses in a square ground and the gorgon-plaque. The date is the close of the VI or the beginning of the V century.

Among the gold objects composing the necklace there are several of remarkable interest. First of all are two figurines of harpies, with the upper part of a woman's body and the lower of a bird's. The face is decidedly archaic: the hair descends in two long braids on the breast. Two wings spring from behind the shoulders and two appear below, on either side of the bird's tail. Compare the harpies of the famous Cortona lamp (*Mon. Inst.* III, pl. 41, 42), of the Praenestine Cista in the Louvre (*ibid.* VI-VII, pl. 64, 3) and of a necklace in the Louvre (Martha, *L'Art Etr.* fig. 384). Next in interest come two female busts with wide-extended arms out of which grow wings—similar to the well-known bronzes found at Olympia, Lake Van, Delphoi, etc. There are also three birds of the same type. Other ornaments are: groups of flowers, a wreath with palm, two pine-cones, two acorns, etc. The fibulae are remarkable for the trapezoidal shape of the base.

In fine, all this jewelry belongs to the best period of Etruscan work and is of most exquisite workmanship, and reminiscent in part of Oriental motives.

The greatest importance of the discovery lies in the fact that it proves the existence of an Etruscan civilization in the province of Pisa. Certainly this was to have been expected, for this region was surrounded, at a short distance, by famous centres of Etruscan culture—Volterra on the south, Fiesole on the east, and Luni on the north. It is to be hoped that a systematic excavation of the site will be undertaken, for this tomb, with its rich contents, was certainly not a solitary one.—*Not. d. Scavi*, 1893, pp. 403-18.

CARCERI (NEAR ESTE).—PRE-ROMAN ANTIQUITIES.—Carceri is in the Euganean plain, some 8½ kil. from Este. It was known by some discoveries of Roman antiquities, but only recently have discoveries come to prove that in pre-Roman times it was a centre—perhaps an important centre—of a Euganean population.

The discoveries consist of six tombs. In one of the ossuaries were found some bronzes which, from their special shape and decoration, are of considerable interest. Such are, in the first place, fragments of two *cinture di panziera* with geometric decoration in raised points and balls, while the second one had a bronze clasp of triangular form, interesting and unique from its figured decoration, representing a sacrifice to a harpy-like divinity. Many other objects are of rare form and character and supplement the rich collections of this period in Este.—*Not. d. Scavi*, pp. 396-403.

CATANIA (SICILY).—AN EARLY CHRISTIAN HYPOGEUM.—The discovery of a hypogeum in the new quarter of the city has shed light upon the cemeterial forms of the earliest Byzantine period, and also on the topography of Catania.

The appearance and form of this burial-place was as follows: Between two heavy walls 1.70 m. thick at the base, and gradually

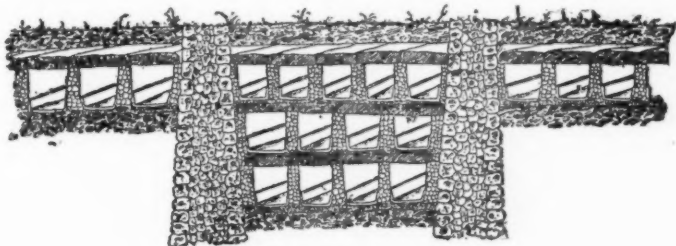


FIG. 2.—EARLY CHRISTIAN HYPOGEUM IN CATANIA.

decreasing in thickness up to 1.20 m., there appeared three superposed stories of tombs, each story containing five tombs, as in the accompanying sketch (Fig. 2). Beyond the walls, on each side, the tombs continued on a single story even beyond the point where the engineer

stopped his investigations, which concerned the erection of a new building. The tombs are simply quadrangular cells built up of sufficient size to contain one or more bodies. Their height varies from 0.80 to 0.90 m., their medium width is 0.80 m., and their length that of the usual body. The vertical divisions are 0.25 m. thick; the horizontal ones 0.30 to 0.35 m. thick. The walls are of an *opus incertum* made up of all kinds of material: the walls of the loculi carefully coated with cement, while their bottom is covered with thin slabs of marble, some of them being inscribed. The upper covering of the loculi was usually one unfinished slab—sometimes two slabs—of lava, above which was a bed of cement and marble chips. One peculiarity found in two of the tombs appears to be unique, and not to occur either in pagan or Christian tombs. In one of them a large part of the body—the trunk—rested on a large tile 0.70 × 0.60 m., riddled with circular holes two cent. in diameter, and supported on nine short feet arranged in groups of three. In a second tomb the perforated tiles extended under the entire body, but instead of having feet it was sustained by necks of small amphoræ cemented to it.

The tombs were extremely poor and appear to have contained nothing. In one of them was found a semi-aureus of Marcian (450–57). Several fragments of Roman inscriptions of the imperial period were used in the construction of the tombs. This was evidently a cemetery *sub divo*, surrounded by buildings, which was used from the IV century onward. One of the inscriptions speaks of the *οίκος αἰώνιος ἐν Χριστῷ*, which is the cemetery itself. The two heavy walls were probably connected with a chapel or *memoria* or *cella cæmeterialis*.

Not far from here, at S. Domenico, a series of loculi of exactly this description was found some time ago, and discoveries of tombs of different periods have been made in this same region. Therefore it may be regarded as certain that the line extending between Piazza Bellini and Cibali was the sepulchral region of Catania, from Hellenistic times down to the early Middle Ages.—*Not. d. Scavi*, 1893, p. 385.

CORNETO = TARQUINII.—LAST EXCAVATIONS OF 1893.—The discoveries made in the necropolis of Tarquinii from March 6 to 31, 1893, just before the close of the season's excavations, are described by Prof. Helbig in the *Scavi* (1893, pp. 514–16). A ruined chamber-tomb was found on March 8 between the new Camposanto and the path across the Monterozzi. The objects were covered with such heavy calcareous deposits as to make it impossible to describe the most of them. There were three proto-Corinthian aryballoi, a Corinthian aryballos, a kantharos of black bucchero, and a small cup of brown clay, worked by hand, similar to those in well- and trench-tombs. A stamp in light green paste, resembling a scarab, had on its rounded surface, instead

of a beetle, an extremely archaic beardless human face, with heavy hair parted in the middle, and upturned corners to the mouth. On the flat part are two men running, drawn almost as if they were kneeling, as is usual in archaic art. A second ruined chamber yielded but a pin and an Attic cup, a tomb *a buca* contained but an amphora. Then came another ruined chamber-tomb, the contents of which belong to the third century B. C., the pottery being mainly Campanian or Etrusco-Campanian. There followed four chamber-tombs, all fallen in. The first cannot be earlier than the third century, but the contents of the second belong to the last decades of the VI century. They are: a small Attic cup with delicately executed black figures, a pair of gold earrings of the type *a baule*, and a scarab cut in a carnelian. On the outside of the cup is represented a centaur pursued by a youth. The third tomb seems to be contemporary with the one just mentioned. Its two benches remained and in each a skeleton. The arrangement of the two bodies constitutes an exception to a constant rule in the necropolis of Tarquinii. Heretofore it has been found that the bodies were placed with the head next to the front wall and the feet next to the entrance. Here the reverse is the case, and the skulls were found near the door. Here were found an aryballos covered with greenish enamel (Egyptian porcelain) and two gold disks. The fourth tomb, placed somewhat nearer the modern Camposanto, yielded a considerable number of vases which may prove interesting, but they are still covered with a thick calcareous crust. While there are some pieces of *bucchero*, the majority are of Greek ware, especially Corinthian.

DISCOVERIES DURING 1894.—Prof. Helbig reports as follows for the first two months of 1894: "The excavations of this year were commenced on Jan. 29 at the Monterozzi, near the Arcatelle, and the Tomb of the Kitharoidos. Visiting them on Feb. 10 and 11, I found that only two tombs had been discovered, the contents of which were interesting for various reasons. The first was a chamber-tomb situated near the painted tomb on the Querciola property, now designated as No. 4. Its vault had fallen in and there were other signs that the chamber had been visited of old; but this visit must have been very superficial, as under the ruins several objects of precious materials were found." Among such objects the most important was a scarab cut in an oriental onyx, with a diameter of .019 m. The cutting was done with great delicacy in an advanced archaic style. It represents Peleus pouring oil from a lekythos into his left hand, while at his feet sits on the ground a nude youth, perhaps the young Achilles, perhaps merely a slave of Peleus. The latter—identified by the inscription ΕΥΕΓΓ behind his legs—stands to the left, bending slightly forward: he is

nude and beardless. The youth turns his face upward toward Peleus and holds up to him, hanging from his left hand, an aryballos and a strigil. There were also found eight gold objects: a plain ring; an earring decorated with parallel lines in relief; two buttons with a rosette in the centre, now empty but originally filled with enamel; two buttons, decorated, the one with gold grains, the other with vine-like leaves on a ground of gold grains; finally a fastener in the shape of a shell (pecten), with two suspending rings. Of the two bronzes found, a vase-handle is decorated with a mask of Seilenos of rather advanced archaic style.

Five of the vases found in this chamber are of Attic, one is of local, manufacture. Among the Attic vases one is of especial interest. It is an olla with two oblique handles (*cf.* Furtwängler, *Berliner Vasensam.*, t. VI, No. 214), which has on both sides the same composition in black figures, executed with great carelessness. "It seems to me not impossible that this is a case similar to those lately noted by Klein (*Jahrb. Arch. Inst.*, VII, 1892, pp. 142-44); that is, that the vase-painter, having already commenced to execute the composition, suddenly changed it to one of different character. The painting repeated on both sides of the vase, as it at present stands, is composed of the following motives: In the centre four horses galloping to the right, and partly hidden behind the last one is the figure of a man, behind whom is an object like a sword. In front of the horses is a woman running with her head turned, dressed like a Scythian woman, but without weapons. A similar figure is behind the horses. The scene is framed by two seated sphinxes facing the handles. The Scythian females are intended certainly to be Amazons, but it is peculiar that they are weaponless. There is no such subject as this in any of the monuments relating to the Amazon myth. It is natural to suppose that the painter had planned the scene to represent a different subject. This is confirmed by two facts: a horse's tail appears to proceed from the thigh of one of the Amazons; the other Amazon has far too long a face, giving the impression that the painter covered up an original bearded face with the typical feminine complexion. In fine, the subject originally planned seems to have been the popular one of Dionysos on his chariot preceded and followed by a Seilenos."

On Feb. 29 a well-tomb was opened, in which the funerary objects were contained in a large *dolium* covered with a stone slab, by which the earth had filtered in, damaging the contents. In it was a cinerary vase of gold-colored metal plate placed in the centre. This vase (25 cent. high in its present state) corresponds in form and in relief-decoration to one found in another well-tomb of Tarquinii, also provided with a *dolium*. This latter example, however, which is published in

Monum. dell' Inst., vol. XI, pl. LX. 5, did not serve as a cinerary urn. It has two handles that turn in two clasps nailed to the band of metal forming the orifice. Such handles must have existed in the vase recently found, as the holes are there. They must have been removed to fit on a cover suitable to its transformation into a cinerary urn. This cover is decorated in the centre with a sort of umbilicus, from which straight lines radiate to a zone of small circles which surround the periphery. All the decorations are in relief. Prof. Helbig adds in a note: "In regard to these vases of metal plate of the same color as our brass compare vol. IV of the *Monumenti Antichi editi dalla R. Accademia dei Lincei*, recently published (pp. 208-26). Here it is that Prof. Barnabei, illustrating the vases discovered in the earliest tombs of the necropoli of Narce and Falerii, has inserted a memoir which quite revolutionizes our judgment in regard to ancient technique."

Grouped around the cinerary urn were: two vases of gold-colored metal plate; two local vases of Italian bucchero, worked by hand; and a turned vase. This last vase, which seems to be imported because turned, has a geometric decoration of horizontal zones, vertical bands and triangles in red on a yellow ground, and corresponds in form and technique, though not quite in decoration, to one published in *Mon. dell' Inst.*, XI, pl. LIX. 18. Many small objects lay at the bottom of the *dolium*: silver cylinders; blue glass beads; fibulae *a sanguisuga*; fragments of harness, etc. Several of the fibulae are decorated with one or more rings. On one is hung a stone arrowhead. This latter is of considerable interest, for it shows that even at the early date of the period of the well-tombs the stone arms were used as amulets, and that thus the superstition current during the classic period, and which has lasted in some places even to the present time, has so early an origin. This tomb, from the absence of rasors and arms, appears to have been that of a woman.

On March 12 Prof. Helbig again visited the excavations and reports as follows: On Feb. 13, at about 40 m. N. of the *Tiro a segno* was found a chamber-tomb 2 m. long, 1.90 m. wide, with vault fallen in. It had been anciently rifled and contained only unimportant fragments of Campanian or Italic vases. About 50 m. to the north a trench-tomb covered with slabs, with contents of some interest. These were: a disk of gold plate used as a pendent to a necklace with a relief decoration of circles surrounding an umbilicus (*cf. Not.*, 1882, pl. XIII. 1; p. 146); two bronze fibulae, similar to the type *a sanguisuga*; a figure of *Bes* in greenish enamel, with a hole for suspension; a strange *guttus* of reddish brown clay with the head of a bull serving as spout, etc.

On Feb. 23, further northward a chamber-tomb with waggon roof was found, 1.95 m. long, 2.20 m. wide and 1.80 m. in greatest height.

Entrance to W. two benches, each with two skeletons, and in both cases the bones of the body first buried were removed toward the wall to make room for the second. The chamber contained some Greek pottery and six vases of black bucchero. Another ruined and despoiled tomb was found in this neighborhood Feb. 26. Soon after the excavations were closed.—*Not. d. Scavi*, 1894, pp. 52-8.

CORTONA.—IT RETAINED PELASGIC FORMS.—Comm. Gamurrini, in commenting on an Etruscan cinerary urn with the name *Karse*, remarks: "The name *Karse*=*Carsus* seems to me important, being surely Italic: from it are derived the typical names of Carseoli or Carsoli in Latin, and of Carsule in Umbrian, by the addition of the suffix *li*, in Latin *lum*, meaning place or dwelling. This Italic name has here become an Etruscan person, no small indication that the Italic language is the basis and substratum of the Etruscan, as the Latin is of ours." Dionysios of Halikarnassos says that in his time Cortona still retained the primitive Pelasgic, that is Italic, tongue, which was equivalent to saying that its dialect preserved archaic words and expressions. The same fact is noted by Pliny the Younger in describing his villa in the territory of Citta di Castello (*Tifernum Tiberinum*) behind the hills of Cortona. The palæography of the inscription is also archaic, so that it may be inferred that in all respects this region was late in becoming Etruscanized.—*Not. d. Scavi*, 1894, p. 51.

GAETA.—STATUE OF CYBELE.—On the road between Formia and Gaeta was found a statue of Cybele, considerably over life-size, executed in several pieces—the head, arms and front part of feet being attached. Cybele is seated on a throne with a turreted crown on her head: she is rather youthful, though matronly in appearance. Near it were found two small lions, making it certain that the statue represented Cybele. It probably stood in a temple.—*Not. d. Scavi*, 1893, p. 361.

GREAT ST. BERNARD.—The exploration of the *Plan de Jupiter*, at the Great St. Bernard, which was commenced in 1890 and continued every year, was brought to a close in the fourth campaign during August, 1893. It had been the intention to leave uncovered the entire area excavated, but the ruinous condition of the remains found made it necessary to cover them in order to ensure their preservation.

There remained to be excavated during this last campaign the central and southwest portions of the plateau. Here were found remains of walls of the same style of construction and, in general, the same thickness as those of the structure uncovered during the preceding year. The remains are too fragmentary and small to allow of a reconstruction of a complete plan of the building, whose axis varies somewhat from that of the temple and the other building: it has so much in common with the latter structure that it may be regarded as another house of the mansion or hospice of the Pennine mount.

The traveller of Roman times who, having ascended by the Italian side of the mountain, and leaving the road, reaches the plateau, finds on either side two buildings separated from one another by far more than the width of the road by which he has travelled. The building on his left (as can be deduced from the great quantity of tiles and charcoal found without its western wall) must have been covered by a very projecting gable roof. Although it is probable that the same was the case for the building on the right, its ruins had been so much more thoroughly searched by previous excavators that it was not possible to be certain. The entrance to the second building appears to have been on the west side and not on the east side, which was opposite the west wall of the temple, from which it was distant about seven metres. No structure stood in front of the temple, which had an unobstructed view, and directly in front of which rose the peak of *Chenalettaz*, while at its feet is the swamp in which so many precious votive offerings have been found.

There are reasons to believe that in Roman times the road across the St. Bernard was open, not merely to foot-passengers and horsemen, but to vehicles: and this is proved by such passages of soldiery as that of Vitellius' soldiers, guided by Cecina (Tacitus, I, 70). Certainly the passage was at that time, though dangerous, far better than since then, and until very recently. In making the new carriage road on the Swiss side, opened last September, only a few archaeological finds were made, among them being some English coins of the XI and XII centuries.

Among the objects found in this season's excavations at the *Plan de Jupiter*, the following are of interest. Three votive plaques of bronze, one being gilt: the latter was offered by an officer of the fifteenth legion: *C. Vettius Sal. . p(rimi)p(ilus) leg(ionis) XV v(otum) s(olvit) l(ibens) m(erito)*. A second tablet was set up by M. Cassius Festus, a soldier of the tenth legion, and a third by Julius Fortunatus, *beneficiarius consularis*. The number of votive tablets of the great St. Bernard amounts at present to fifty. A graceful bronze statuette of Minerva was found with high-crested helmet, mantle over breast and right hand raised to hold spear. A small number of ornaments, utensils, and arms came to light, among them a gold fibula and three cut gems.

Of the many coins found nearly all were in ground already explored: all were Roman except a few Gallic coins.

Among all the objects discovered by any explorer at the *Plan de Jupiter*, none save the Gallic coins can be assigned with certainty to the pre-Roman age. The instruments, arms, ornaments all belong to the imperial period, to whose beginnings the sanctuary, the hospice and the road of the Pennine mount should be attributed. Through

the Romans the passage became slightly more frequented in the first century B. C., as is shown by the arrangements for its safety made by Caesar in 57 B. C., and the Gallic coins found. It is probable that before the Roman structures there were no buildings on the mountain : for the worship of Penninus the rock sufficed, around which were discovered so many Gallic coins, together with others of the Roman republican period. Of the imperial period the first century furnishes the largest number of coins and of objects. A catalogue of the Gallic coins, published by Ferrero and Von Duhn, comprised 418 pieces, including the few found in 1890. Since then 74 were discovered. During the excavations of 1890-93, three hundred and three Roman coins were found, one-half of which belonged to the Julian and Claudian emperors.

The temple suffered from violence, at some time, as is shown by the votive offerings broken or cast into the swamp below ; and the buildings of the hospice were consumed by fire. It is impossible to say whether these events were contemporary. On account of Carolingian coins found here it is possible to suppose that some sort of a refuge existed in the IX century. But certainly the place was deserted when St. Bernard of Menthon came here in the XI century to found his hospice at the distance of half a kilometre from the ancient station, on the other side of the lake which occupies the summit of the hill, using for his structure the very stones of the *mansio* and the temple.—*Not. d. Scavi*, 1894, pp. 33-47.

MONTERIGGIONE (ETRURIA).—AN ETRUSCAN TOMB WITH REMARKABLE CONTENTS.—On the property of Sig. G. Terrosi, not far from the railway station of Castellina in Chianti, a family chamber-tomb was accidentally found, excavated in the tufa, supported by a central pilaster and surrounded by sepulchral benches. The numerous and important contents of this tomb date from the third century B. C.

Among the objects found are thirty-five cinerary urns, four of alabaster and the rest travertine. The principal urn is of alabaster with gold lights. It is double—for husband and wife. The two figures are represented on the cover as reclining on a bed. They are the heads of the family here buried, and their names are inscribed in fine characters on the face. The urn is 1.07 m. high and 0.84 m. wide. The rest of the objects consist of: fourteen figured bronze mirrors; thirty-four pieces of jewelry; thirty-seven coins, among which are two *dupondæ* of Volterra; fourteen bronze vases of various shapes; over thirty glazed vases of Etrusco-Campanian ware, forming in themselves a superb collection, with unique pieces; twenty-eight painted Campanian vases, mostly bell-shaped craters; also various candelabra, arms and many other objects in iron; many local vases of yellow ware of

varied forms; vases that appear to be Etruscan imitations of the Campanian style, *etc.*, *etc.*

The number and importance of the objects found in this tomb is so great that they might of themselves form a small museum: and this is what the owner is doing, having transported them to his house in Florence, where he is having them cleaned and repaired. He has, however, promised to give a selection to the Central Etruscan museum in Florence. The director of the museum, Prof. Milani, is to illustrate them in a special memoir.—*Not. d. Scavi*, 1894, p. 51.

ORVIETO.—Excavations have been continued on a small scale at Orvieto, resulting in the discovery of a number of tombs the contents of which appear to be of no remarkable interest, except perhaps a black-figured lekythos with two warriors fighting, and an Attic red-figured amphora, with a laurel-crowned Triptolemos on his winged chariot with two female attendants on one side, and, on the other, three male figures, one carrying a torch in each hand. Among the bronzes is a kottabos base with three lion feet, surmounted by the usual nude figure; also several *simpula*, one of which has dog heads on the handles and a relief of a nude man running. On a red-figured kylix is the inscription $\delta\ \pi\alpha\iota\varsigma\ \kappa\alpha\lambda\acute{o}\varsigma$ repeated twice, and on the interior is a youth on horseback, while a scene from the palaestra decorates the exterior. It had been anciently repaired.—*Not. d. Scavi*, 1893, pp. 327, 356.

PERUGIA.—AN EARLY ROMAN VILLA.—At the *Villa di S. Lucia* outside the gate of S. Susanna have been found the ruins of a villa of late republican times. The villa was surrounded by a wall of travertine blocks according to the Etruscan custom, and its destruction may be ascribed to the time of the famous siege of Perugia in 713–14 A. U.; during the war between Anthony and Augustus.—*Not. d. Scavi*, 1893, p. 355.

POSEIDONIA-PAESTUM.—A GOLD STATER.—Sig. A. Sambon publishes a gold stater of Poseidonia found near Lavello, in the province of Basilicata. It weighs $8\frac{1}{2}$ grammes and is of the same dimensions and type as the well-known silver didrachmas of that city, coined early in the v century. On the obverse, Poseidon striding to right, wielding trident with right and extending left: inscription $\Pi\Theta\Xi\text{EI}$. Reverse: bull to left with retrograde inscription $\Pi\Theta\Xi\text{EID}\Delta$. The date is 480–460. There seemed many reasons to regard the coin as false. Gold Greek coins have always been suspected. Eckel was unwilling to admit the Athenian gold coin or the staters of Kyzikos, Lampsakos, and Phokis. The gold coins of Gela in Sicily were held to be false until a hoard of them was found near Otania. Far more reason would there be to doubt this gold stater of Poseidonia, not only because it would be the only example of a gold stater coined in Italy at that time, but because it is an exact reproduction of the silver coinage. Gold was then coined only

in Etruria and at Cumae, and many authorities still deny the authenticity of the Cumæan coins. Sig. Sambon, however, advocates the authenticity of the Poseidonian stater and cites many examples where gold and silver coins have the same type and hardly vary in modulus. Poseidonia itself coined silver and bronze coins of the same type and modulus. The weight of this stater, 8½ grammes, is exactly that of the Persian darics and of the staters of several cities of Asia Minor, derived from the Assyro-Babylonian sixtieth of a *mina*: and it should be noted that from the VI to the IV century the Persian darics were extremely popular and were in circulation over nearly the entire ancient world.—*Arch. stor. per le prov. Napol.*, 1893, 2.

ROME.—STATUE OF A FLUTE-PLAYER.—In the ruins of the Palace of the Nummii Albini near the corner of Via Firenze and Via Venti Settembre, part of which had already been discovered some years ago, several pieces of sculpture were found. The most noteworthy piece is a statue, 1.15 m. high, of a youth playing on the tibia, lacking the head and right forearm. It is a reproduction of a Praxitelean original. One copy is in the Vatican (Helbig, *Führer*, 19); another in the Capitol (*ibid.* 130). For the literature consult Friedrich-Wolters, *Bausteine*, 1501, 1502. The statue is nude, only that the left shoulder is covered with a tiger's skin, part of which hung along the tree trunk against which the figure leaned. It is well modelled and of excellent artistic execution. There was also the statue of a nymph, one metre high, nude above, who holds with both hands a large shell. The head alone is wanting, and it was carved separately.—*Not. d. Scavi*, 1893, pp. 357-8.

STADIUM.—In opening an ancient passage on the west side, leading to the House of Augustus, there came to light a beautiful head of Apollo of Parian marble, lacking the nose and part of the right cheek; also a fragment of a small base of green porphyry which is judged by Prof. Schiaparelli to be part of the throne of an Egyptian Pharaoh. It is covered on two sides with hieroglyphics, contains signs common to the prenomen of a number of Pharaohs of the XIX and XX dynasties, but Prof. Schiaparelli believes this to relate to Rameses II.—*Not. d. Scavi*, 1893, p. 358.

RUVO (APULIA).—A GREEK TOMB.—In digging a cellar in the town of Ruvo a Greek tomb was found made of a tufa case or *pila*. It was in good preservation and no earth had penetrated, for it was covered by a double slab, one of tufa and another of travertine. The mortuary case was let into an aperture dug in the rock. Only one of the objects contained in it merits attention, and this is an Attic amphora of great importance, for on it is represented the myth of Theseus descending to the bottom of the sea to the palace of his father, Poseidon, to get the ring of Minos and to receive from Amphitrite the gift of the gold crown. This painting dates at least as far back as the last quarter of

the fifth century. In the myth of Theseus, we see first the standing figure of a young woman (Amphitrite) in long broad-sleeved chiton and pallium wrapped about her leaving her right arm and shoulder exposed. The head, like all the others, is in profile. Then comes a youth (Theseus) in short tunic with delicate folds, and in a chlamys: he clasps the right hand of the next figure and holds an indistinct object in his left. In front of this youth stands Poseidon, with long pointed beard, and carrying trident in his left while he clasps the youth's right hand. Behind Poseidon is an old bald man (Nereus) who turns around to speak to the last figure in the composition. He leans with his left hand on a long sceptre and rests his right on his hip. The last figure is a young woman (a Nereid) who holds toward the old man a patera, and holds in her right a *prefericulum*, offering drink to the departing guest. Between the last two figures rises a delicate Doric column, a symbol of the palace of Poseidon, in which the scene takes place. This scene appears only on three other vases: (1) Agrigentine krater (*Monum. ined. Ist. I*, 52, 53); kylix of Euphronios from Caere (Ghirardini, in *Mus. Ital.* III, 1); a Bolognese krater (Ghirardini). Sig. Jatta says that the Bolognese krater is too late to enter into the comparison, and that the new krater from Ruvo is a few decades later than the cup by Euphronios, and about contemporary with the krater of Agrigentum. Æsthetically, and in its treatment of the myth, it is the finest. The style is bold, grand and simple. It comes between the severe style which ends in about 440 B. C. and the later style which comes in about 403 B. C. Sig. Jatta makes a detailed comparison of the composition as it is represented on the various vases, figure by figure, and in this we cannot follow him. He discusses Poseidon's paternity of Theseus and the attribution to the bald old man of the name of Nereus, whom he supposes to have been Theseus' guide to the palace of Poseidon and to have accompanied him thence.

On the other side of the vase is a composition which he calls *scuola di musica*—a lesson on the six-corded lyre and another in singing. There are two masters and two pupils: or perhaps master and judge. —*Not. d. Scavi*, 1893, pp. 242–52.

STRONGOLI=PETELIA (CALABRIA).—PEDESTAL OF AN HONORARY STATUE TO MANIUS MEGONIUS LEO AND HIS TESTAMENT.—In October, 1892, Dr. Trombetta announced that on recommencing excavations in the commune of Strongoli there had been discovered the pedestal of a statue of a single block of marble, 1.25 m. high and 0.60 m. wide without the cornice. It was found near its base, which remained *in situ*, and it contained on the front an honorary inscription to Manius Megonius Leo, and on the left side a chapter of the testament of this personage. Together with the pedestal was found the left hand of a bronze statue more than life size and many other pieces belonging to a bronze statue.

On the same site was uncovered the section of a wall constructed of immense blocks and which stood in relation to other constructions at some distance, evidently ruins of grandiose structures. No excavations have been made here without copious discoveries, and there were many reasons for placing on this site the ancient city of Petelia. This conjecture has been now confirmed by the inscription of the statue found *in situ*, on the spot which must have corresponded to the upper part of the forum of Petelia where, as can be seen by reading the inscription, the statue was to have been placed. Excavations made in 1886 gave the fragments of a bronze female statue, of a bronze male statue, and two marble pedestals with inscriptions, one in honor of Lucilla Isaurica, the other in honor of Cedicia Iris. They served as bases for statues which the Petelians erected, and in view of which Megonius made to them important donations. These pedestals also were found overturned near their bases, which were found *in situ*.

In the opinion of Prof. Barnabei these discoveries do not entirely settle the question of the topography of Petelia. This site was but ill-adapted for defense, and yet Petelia long resisted the Carthaginian assaults and was finally conquered only by famine. Furthermore, all the antiquities here found belong to the Roman period. It would therefore appear probable that before the Roman conquest Petelia was situated on the hill where is the modern Strongoli, to which again the remnant of the inhabitants retired during the piracies and wars of the Middle Ages.

The Roman city, at all events, was situated on the plain, and, according to Strabo, was the metropolis of Lucania. According to the inscriptions thus far found its flourishing period was extremely limited, beginning with Trajan and not extending later than Antoninus Pius—about half a century. It may even be supposed that its fictitious importance was due to the munificence of one individual, the man whose honorary inscription and part of whose will have now come to light. As they are of importance for municipal history in the imperial period, they will be here reproduced:

M · MEGONIO · M · F ·	<i>Manio Megonio Manii filio</i>
M · N · M · PRO · N · COR	<i>Manii nepoti Manii pronepoti Cornelia</i>
LEONI	<i>Leoni</i>
AED · IIII · VIR · LEG · COR	<i>Aedili iiii viro lege cornelia</i>
Q · PP · PATRONO · MV	<i>quaestori pecuniae publicae patrono mu-</i>
NICIPII · IIII · VIR · Q · Q	<i>nicipii, iiii viro quinquennali</i>
DECVRIONES AVGV	<i>decuriones, Augus-</i>
TALES POPVLVS QVE	<i>tales populusque</i>
EXAERECONLAT	<i>ex aere conlato</i>
OBMERITAEIVS	<i>ob merita eius</i>

KAPUT EX TESTAMENTO.

Reip(ublicae) municipium meorum, si mihi statua pedestris
in foro superiore, solea lapidea, basi marmorea, ad exemplum basis
quam mihi augustales posuerunt, prope eam quam mihi municipes
posuerunt, posita fuerit (sestertium) c(entum) m(ilia) n(um-
mum), quae eis me vivo pollicitus sum, dari volo.

5. Ea autem condicione (sestertium) c(entum) m(ilia) n(ummum)
q(uae) s(upra) s(crypta) s(unt) dari volo, ut ex usuris semissibus
eius pecuniae omnibus annis, die natalis mei, qui est x kal(endas)
April(es),
distributio fiat decurionibus epulantibus (denariorum) ccc, de-
ducto ex his
sumptu strationis; reliqui inter eos qui praesentes ea hora erunt
10. dividantur. Item augustalibus eadem condicione (denarios) c l
dari volo
et municipibus Petelinis utriusque sexus et more loci (danarios
singulos) om-
nibus annis dari volo, item in cena parentalia (denarios) l et hoc
amplius sumptum hostiae, prout locatio publica fuerit, dari volo.
A vobis, optimi municipes, peto et rogo per salutem sacratissimi
principis
15. Antonini Augusti Pii liberorumque eius, hanc voluntatem meam
et dis-
positionem ratam perpetuamque habeatis, totumque hoc caput tes-
tamenti mei basi statuæ pedestris, quam supra a vos (sic) petivt
(sic) mihi po-
natis, inscribendum curetis, quo notius posteris quoque nostris
esse possit vel eis quoque qui munifici ergo patriam suam erint ad-
20. moniant.

The name of Megonius occurs four times in the Latin inscriptions of Petelia. The first is on the pedestal of a statue erected to him by the *augustales*, which contains, beside the dedicatory inscription, a chapter of his will mentioning bequests made by him which earned him this honor. It is in the church of Strongoli and was known as early as the xvi century. His name occurs in another inscription on a slab now walled into the Monte dei Pegni at Strongoli. It adorned the base of a statue also of Megonius, but erected to him not only by the *augustales* but by the other orders of citizens when Megonius had reached the highest of his municipal offices, not yet mentioned in the preceding inscription. He is mentioned the third time on the base of the statue of his mother Cedicia Iris (*Not.*, 1886, 172, *Ephem. Epigr.* viii, 260). The fourth instance is in the inscription of the statue

erected to Lucilla Isaurica (*Not. and Eph. Ep., ibid.*). This new and most important inscription makes the fifth.

The date of Megonius is now fixed by the new inscription in which he calls upon his fellow-citizens to carry out his will *per salutem sacratissimi principis Antonini Augusti Pii liberorumque eius*, and this gives the limits of 138-161 A. D.

The reason for which the first statue was erected to Megonius was that he left to the municipality the sum of ten thousand sesterces, the Cedician vineyards which he inherited from his mother, a part of the Pompeian property, *etc.* The *augustales* alone erected the statue because they benefited almost exclusively by these legacies which were destined to the support and use of the two triclinia which Megonius had given them for public banquets.

The second statue was erected by all the orders of citizens—*decuriones, augustales*, and *populus*—by money contributed by them. The tablet recounting the benefits of which this was a recognition has been lost.

The pedestal of a statue found some years ago bears an honorary inscription to Lucilla Isaurica, daughter of Caius, in memory of whom, says the inscription, Manius Megonius Leo had given to the municipium one hundred thousand sesterces. Prof. Barnabei believes her to have been his wife. He gave a similar amount in memory of his mother, Cedicia Iris, as is attested by the inscription of her statue. In every case the amount given was to be put out at interest (in one case six per cent.), and this spent every year for a public banquet and for distribution of money at the anniversary of birth and death.

It is amusing to reflect on the vanity of the man who was not satisfied with two statues of himself but wished for a third in the same city, and bound his fellow-citizens by a public document to erect it to him, as a condition of a large gift. It is a rare case of effrontery: in fact, Prof. Barnabei believes it to be unique and seeks to explain it. He suggests that as Megonius had gained no new honors, since his last statue, and as it would appear simply ridiculous to have the new one a mere repetition, the explanation is to be found in the expression *statua pedestris* in the new inscriptions. In contrast, therefore, to an equestrian statue in the forum, he wished himself represented standing, not far from similar statues of his mother and wife.—*Not. d. Scavi*, 1894, pp. 18-29.

SYRACUSE (SICILY).—Prof. Halbherr writes: "In Eastern Sicily archaeological researches continue to yield an ever-increasing harvest. Upon the Achradina of Syracuse a tomb has been found, which proves the existence in this locality of a necropolis hitherto unsuspected, but partially destroyed in ancient times. It contained painted Greek

vases of the earlier part of the sixth century B. C., and throws an unexpected light on the topography and history of the ancient city. Dr. Orsi has concluded his excavations of the Olympieion of Syracuse, which had already been partially explored in 1836 by Signor Cavallari, but afterwards covered up. The present condition of the ruins is deplorable, all that remains being two columns and a few fragments of the foundations of the stylobate. The temple will now remain uncovered. Meanwhile Dr. Orsi has ascertained the extreme limits of the building, and has measured the inter-columnar spaces, and has thus prepared the materials for the reconstruction of the original plan. The Olympieion is found to be long and narrow, a character peculiar to very archaic temples. The epistylia would appear to have been in wood with terracotta coverings. Fresh researches were also made in the catacombs of S. Giovanni e Cassia, where Dr. Orsi was able to take copies of more than a hundred new sepulchral inscriptions, partly inscribed on marble tablets and partly scratched upon the wall. A new three-storied catacomb was discovered on the same occasion. The Syracusan campaign of excavations for this year will conclude with the exploration of a Siculan necropolis in the mountains.—HALBHERR in *Athenæum*, Aug. 5.

Evident traces of a Scaean gate have been observed by Prof. Orsi in the circuit of the walls of Dionysius.—*Athenæum*, Aug. 12.

ARCHAIC TOMB AND VASES.—In the *Scavi* we find an account of the tomb mentioned above. The beach between the south edge of the terrace of Acradina and the Porto Piccolo at Syracuse is in great part covered with ruins and dumped earth, containing archæologic deposits of the most diverse periods. At a point where there is an artificial stratum of about 1.50 metre some rude tombs were found. One consisted of a slab of calcareous stone resting on the rock, below which were some burnt bones and a few bases which have been placed in the museum of Syracuse. This is undoubtedly an archaic tomb for incineration. It is isolated, but must have formed part of an ancient necropolis, up to the present unknown and partly destroyed at an early date, probably during the Græco-Roman decadence. To it belonged also some few trench-tombs excavated in the rock next to the Novantieri field. The contents, however, of this tomb for incineration are of especial interest for the history of ceramics and the topography of ancient Syracuse. The objects were: (1) an aryballos of brown bucchero; (2) a kylix with metallic glaze with neck and low basin; (3) a kylix with black and red bands and rude palmettes at the base; (4) a large bell-like skyphos. Its ground is a bright coralline red, bounded below by a zone of double dots and a foliated Doric kymation. Twelve large figures are represented on the two faces, and two

smaller figures under the handles. On one side are three couples of a warrior and an Amazon, confronting one another in fight. The warriors wear the crested helmet, *αἰλῶπις*, a decorated cuirass, below which emerged the folds of a short chiton, *enemides*, a circular shield and a lance. The Amazons are of the type of Athena Promachos, with Attic helmet, with low calotte and without ear-pieces, a belted chiton, variously decorated, over which they wear as corselet the *χιτωνίσκος* or *διπλοῖδιον*, a round shield and a lance. On the other face are five women, who appear to be Amazons from the similarity of their costume to the preceding. But they are unarmed except for their helmet, and are dancing around Hermes. Under the handles are two small figures of hoplites. Representations of Amazons in very archaic vase-painting are exceedingly rare.—*Not. d. Scavi*, July, 1893.

EXCAVATIONS IN THE NECROPOLIS DEL FUSCO.—We give here the full report on Prof. Orsi's important excavations in the Syracusan necropolis called *del Fusco*, which was promised in our last issue (ix, p. 328).

Prof. Orsi begins his report by saying: "The beginning of a systematic exploration of the great Syracusan necropolis *del Fusco*, has been greatly desired by native and foreign scientists, because this vast expanse of tombs that must contain so many relics of the ancient Dorians of Syracuse, though for centuries searched by treasure-hunters, tomb-spoilers and stone-cutters, has been but seldom, and for a few brief moments, the field for the activity of the keen-eyed and light-handed archaeologist. Though vases and other objects from this necropolis are dispersed through many collections, all that is known of it is limited to the two reports of Mauceri and Cavallari and to a note by myself¹. Not only the hope of large additions to the museum, but the study of many problems connected with the history of vase-painting, terracotta sculpture, and religious antiquities, as well as with the history and topography of Syracuse, made it advisable to proceed at once to orderly researches. I therefore proposed—and the Ministry consented—to undertake a first campaign, which lasted, with short interruptions, from Dec. 5, 1892, to Jan. 12, 1893, with an average of 18 men under the direction of Sig. Ed. Caruso.

"It being my intention to examine minutely in this and successive campaigns the entire area of the Fusco, I limited myself this time to the exploration of three sections, doing this in so thorough a manner as to exclude the possibility of any future discoveries in this area. This area consisted of: (1) a long strip on the southern border of the

¹ MAUCERI, *Relazione sulla necropoli del Fusco in Siracusa, etc.*, Palermo, 1878; CAVALLARI, *Relaz. sugli scavi eseguiti nella necropoli del Fusco dal 2 Sett. al 4 Ott.*, 1885, (*Not. d. Scavi*, 1885, pp. 49–54). Idem, *Su alcuni vasi orientali con figure, etc.*, Palermo, 1887; ORSI, *Not. d. Scavi*, 1891, pp. 404–11, describing 43 tombs discovered in 1890.

necropolis . . . of an approximate area of 4795 sq. met., in which strip there had already been discovered 13 tombs, described by me in the *Not. d. Scavi* of 1891; (2) a small piece east of the line of railway Syracuse-Noto, and south of the road Syracuse-Florida, with an area of 2400 sq. met.; (3) a small piece of 2500 sq. met. southwest of the Osteria Regina. In the two latter sections Cavallari had found some tombs in scattered excavations; in the third I found in all 176 tombs, about half of which had either been completely devastated or already explored by Cavallari; and of these, therefore, I took no account. It may then be said that almost the entire southern border of the necropolis has been examined, and that there remains for future campaigns the plain as far as the Temenites hill.

General Remarks.—"The sub-soil of the necropolis is formed of an immense bank of porous tufous calcareous stone, of pliocene formation, rich in remains of marine fauna, and not excessively hard: this rock is at a depth of from 30 to 80 cm. below the stratum of *humus*, and in it the Greeks opened colossal ditches for the burial of their dead; but owing to the bad quality of the stone, most unsuited to the preservation of the bodies, it was necessary to use cases and flooring, as will be shown later.

"The necropolis was certainly outside the Gelonian walls; the contents of the 135 Greek sarcophagi (I leave out the few barbaric tombs) belonging to the period between the VIII and V centuries are pre-Dionysian: with this fact is connected an important archæological question . . . whether the necropolis was within or without the great defensive works constructed by the tyrant for the protection of the enlarged city; I am inclined to believe that a great part of it was included in these walls.

"The persistent, intense and fatal devastation of the surface of the ground from ancient times has obliterated every trace of the external signs of the tombs, and, however persistently I have searched for the smallest remains, not a single one of the 135 tombs shows any traces of *ædícula*, *tempietti*, *heroa* or other structures. Though their lack may correspond to the archaic period of the tombs, the entire lack of *steles*, *cippi* and inscriptions is surprising. On the other hand, on the southern border of the necropolis, at a short distance from the edge of the terrace, I uncovered in the first tract of land a piece of wall running east—west along a distance of about 30 m.: it is a good construction of which two courses of blocks remain. Another piece, whose foundations extended over a length of 20 m., and was exactly parallel to the first piece, was found at the west end of this land. As no tombs could be found outside this wall, it may be certainly regarded as the enclosing wall of the necropolis, the *ὄρος τῆς νεκροπόλεως*. Traces of analogous

walls I found in the necropolis of Megara Hyblaia, and they are not lacking in Greek necropoli that have been thoroughly explored. The disappearance of this wall at other points of the limits of the Fusco necropolis is owing to the diminution of the area of the terrace on the south from the constant work of stone-cutters.

"At the west end of the first piece of land, outside of the cemeterial area, I found a series of long, deep trenches cut in the rock, 60 to 70 cm. wide, two metres or more deep, and from two to eight metres long. They are placed in parallel rows from north to south and, though at first sight resembling tombs, they must have been used for draining purposes. In their midst was a large rectangular well, six metres deep down to a place where water still oozes from the rock.

"In so far as the *historic vicissitudes* of the necropolis are concerned, the great trenches No. 101 and *D* are proofs of a devastation, a *τυμβωρυχία*. In the second and third sections, the nearest to the city, the devastation of the archaic Greek tombs by the later inhabitants—Romans and Byzantines—is still more apparent. In the centre of both these lots I opened up the entrances to hypogeic rooms, with fallen vault, which seem to be of a late-imperial period: in the course of this and the succeeding period some very poor barbaric tombs were opened up in the midst of the Greek sepulchres, which were despoiled and transformed into miserable poliandric tombs, as in Nos. 73 and 71.

"The *normal shape* of the tombs is that of colossal ditches and counter-ditches, the former covered with heavy slabs, the latter filled with earth: the body was deposited either on a wooden bed—*κλίνη* or in a box—*σπόδος*. The porous subsoil permeated with water made this necessary, and that it was a fact is shown by numerous metal nails sometimes attached to wooden fibres. But even this did not preserve the bodies from rapid disintegration. Only the few bodies that were placed in monolithic sarcophagi of fine white calcareous stone have been perfectly preserved. Elsewhere, as at Megara Hyblaia, the different geological structure did not require such an arrangement; for instance, in the third lot, where the soil is deeper the sarcophagi are more abundant than the trenches. The white sarcophagi are for persons of distinction, those made of tiles are rare. I found no tombs with *loculus*, such as were found by Cavallari and Mauceri, nor tombs in two stories.

"In so far as the *sepulchral rite* is concerned, I found 122 buried bodies, 4 surely and 1 doubtfully burnt, and two abnormal burials (84, 126). Combustion is therefore rare, as might have been expected, for the necropolis hardly invades the fifth century B. C. Contrary to the case at Megara, a rigorous rule is observed in the orientation of bodies and tombs. In the first lot all the tombs go from E. to W. with the

skulls always to the E.; in the other lots there is a slight license, for I found four skeletons with skulls to the S., three to the N. and six to the W., but in half these cases the abnormal position was made necessary by the plurality of bodies. In tombs 84 and 127 the peculiar form of burying the skull alone was observed, whereas at Megara there were two headless deposits (208, 235). Another difference is that—while at Megara, where it was easy to open and shut the tombs, each tomb served for an entire family, and contained a number of bodies—at the Fusco each large ditch contained but a single body, perhaps because it was difficult and expensive to open it; and thus the family tombs the *μνήματα κοινά* or of each *γένος* were formed of groups, such as 47, 32-40, scrupulously distanced and in line. Of the funeral banquets partaken of on the spot (*περιδευνα*) or of the *imbandigioni* destined for the deceased there are traces in the vases placed around and above a number of tombs. The large vases, like those of tomb 108, contained liquids, and certainly were related to the sacred lustrations, the *χουαί*, *ἅπερ νεκροῖσι μελικτήρια*. Gradually the custom comes in of accompanying the defunct with the objects familiar or dear to him, such as ornaments and jewelry, but still here, as in other Doric necropoli, there is an extreme sobriety in the use of grave-goods.

"The vases are the most instructive among the sepulchral objects. It had for some time been known that this necropolis was important for the chronology of proto-Corinthian vases, and now for the first time the exact circumstances and associations under which they are here discovered are known. The form most usually in use is the small heart-shaped lekythos of very pale yellow clay, of various shades, with brown geometric or animal friezes. While two exquisite specimens of tomb 85 stand out clearly from the mass, there remains always in the great majority of cases the problem whether they are Corinthian or Italo-Corinthian, for in Corinth itself a great deal of ordinary work was done by the side of the fine pieces. The summary design of the proto-Corinthian style makes it all the more difficult to distinguish between originals and copies. Still, it appears to me that in the Fusco necropolis there are but few originals and many copies.

"Some proto-Corinthian vases are decorated with geometrico-empaisic motives, so archaic as to recall strongly the Dipylon style: this is especially the case with the skyphos of tomb 89, the kylix of tomb 108, and an inedited lekythos from preceding excavations. Hence the Fusco necropolis furnishes the transition between the geometric and the proto-Corinthian styles. We also find here illustrated the transition from the proto-Corinthian and Corinthian, for there are some tombs that contain examples of both—such as tomb 29—a fact already noted elsewhere, as at Megara Hyblaia (tomb 499) in a yet inedited

part of the necropolis. According to Wilisch (*Altkorint. Thonindustrie*, 1892) and Dümmler (*Jahrbuch* II, p. 19) the proto-Corinthian style originates from the Dipylon, flourishes in the VII century, at the close of which it is expelled by the Corinthian, but has survivals as late as the V cent. If this chronology be correct we must admit a moment of transition instead of a clear interval between the proto-Corinthian and Corinthian styles. This would seem to be confirmed by the discoveries of Naukratis, where the earliest vases, at the close of the VII cent., are archaic Corinthian, there being none that are proto-Corinthian (Smith in *Journ. Hellen. St.*, 1890). Typical of the transition between the two styles at the Fusco are the small zoned cups (σκούφος, κούλος) of high campaniform shape and geometrico-empaiastic decoration at the most archaic stage (t. 108), with figures of schematic quadrupeds in the next (t. 29), of depressed and heavy shape, with only bands of decoration in the latest stage (t. 126), and which lasts by the side of the black-figured style. This latter form, which is represented at Megara by hundreds of examples associated with aryballoi and bombylioi, is, on the contrary, extremely rare in the Fuscan tombs until now explored (t. 126), in which the bombylioi and aryballoi are also rare.

"Hence it follows that, with the exception of a few tombs, the zone of the necropolis now explored and described belongs to the most archaic period of Syracusan burials, that is to the end of the VIII and the course of the VII century.

"The kantharoi of black bucchero are numerous, and raise once more the question whether their origin is Etruscan or not. Associated and contemporary with the proto-Corinthian there are vases of enamelled semi-majolica, as well Phœnician as imitations, and one of them has an animal decoration. Rhodes is represented at this early period by a single vase—an amphora in tomb 65, but two other kylikes of this manufacture had already been found in the necropolis.

"While the first and third lots of ground yielded almost entirely proto-Corinthian ceramics, the second gave also black-figured pottery. There were, briefly: a kylix of the *Kleinmeister*; cups of the Epiktetan cycle; large, perhaps Kalkidian, skyphoi; fragments of a Panathenaic amphora; others reminding of the style of Pamphaios, of Nikosthenes (trench D, tombs 74, 82), of Amasis (tomb 74); only two vases of fine red-figured style (tombs 16, 54) of the beginning of the V century—none having artists' signatures or decipherable inscriptions. Chronologically speaking, the ceramics represent the very archaic and the archaic periods—close of VIII to close of VI cent.—and the few examples of the red-figured style are exceptional, being found near the place

where the beautiful *peliké* with the Battle of the Amazons was discovered, which was published in the *Not. d. Scavi*, 1891, p. 408.

"There are but few terracottas, and they are of common types, so well known in the Greek necropoli of Sicily and Rhodes. Works in metal are also very scarce, as is always the case in Greco-Sicilian necropoli. Here, as in the thousand or more tombs explored at Megara, it is shown that the usual method of fastening the chiton was not with the fibula but with large bronze pins with disk or knob-like head. The few pieces of silver are in part imitations of oriental objects of Græco-oriental rather than Phœnician manufacture. In contrast to the wealth of silver objects at Megara, this necropolis displays the extremest poverty."

After giving this summary of the results of his work and the deductions to be drawn from them, Prof. Orsi passes to a minute description of each tomb and its contents, in which we have not the space to follow him. One point in his report we wish especially to praise, where everything is praiseworthy, and that is the large number of illustrative cuts that accompany the description of the tombs. The value of the *Scavi* would be greatly increased if this were converted into a more general custom.

I will close by calling attention to the two small vases in tomb 85, already referred to as the most exquisite of the proto-Corinthian vases. They are illustrated on pp. 470-71. The first is in the form of

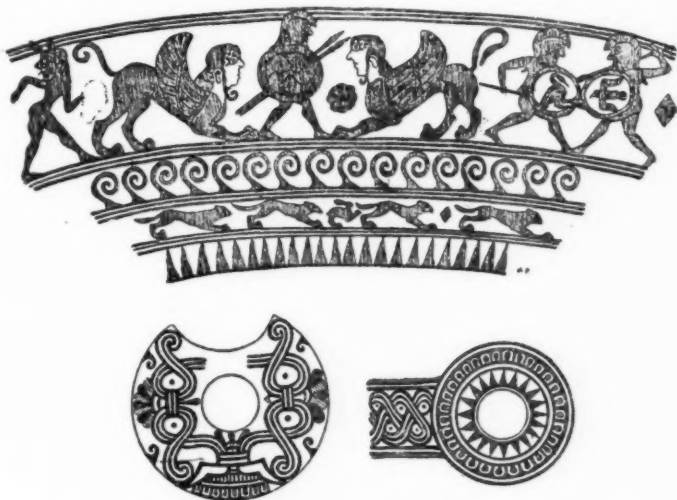


FIG. 2.—PROTO-CORINTHIAN SKYPHOS FROM SYRACUSE.

the fore part of a feline—lioness or leopard—with muzzle resting on extended paws. The fine clay is covered with a brilliant cream; dark red is used for the mane, tongue, lips and ears; black for the eye-brows and cornea; the head is stippled all over, the mouth open and the teeth marked in *graffito*. On the rear section is painted an archaic bearded gorgon mask. The second vase is a small lekythos only 53 millimetres in height, equal in delicacy of design, if not in number of figures, to the two proto-Corinthian examples in the British Museum and at Berlin. The scenes are a hare hunt, a hoplitomachia with a warrior between two sphinxes, followed by a composite being with a human body and a head half-human, half-animal. In the same tomb was another small lekythos 5 cent. high, of the same style, and a majolica alabastron with enamelled surface of light sea-green and of genuine Phœnician workmanship. This tomb is among the earliest thus far found at the Fusco, and certainly belongs to the first half of the seventh century.

I would call attention to a beautiful terracotta recumbent female figure, 17 cent. long, found in tomb 133. It is of early archaic style. The figure rests on the left elbow, and, while the right arm rests on the knees, the left holds a drinking horn. The hair falls in triple curls on either shoulder.—*Not. d. Scavi*, 1893, pp. 445–86.

A writer in the *Classical Review* (June, 1894) selects the following as the most interesting objects found, following the order of the tombs: (No. 16) two r.-f. lekythoi, one with Eos, in bad condition; (19) a large archaic stamnos in fragments, with palmette-patterns on the shoulders; (20) a large model of a biga; (24) five bucchero kantharoi; (28) twenty-four large bent nails of bronze, and (29) a small proto-Corinthian lekythos with friezes of animals; (41) a b.-f. kylix by a minor artist, with unintelligible inscription; (54) a r.-f. skyphos of fine style, with 'mantle-figures,' and (65) an amphora imitative of Rhodian or Melian style, with geometrical patterns, a pyxis and a b.-f. kylix; (74) numerous fragments of b.-f. vases; two late kylixes and two large skyphoi, fragments of Panathenaic amphorae, and of a crater in the style of Nikosthenes; fragments of b.-f. kylixes in the style of Glaukites, and another in the style of Epiktetos. (85) A vase terminating in an animal's head, and several proto-Corinthian lekythoi, one like that in the British Museum, with two friezes and elaborate patterns; also an alabastron of enamelled ware, with figures of animals. (101) An early Corinthian kylix and stamnos, an early pyxis and lekythos, the latter with three dogs running. (113) Two proto-Corinthian lekythoi with dogs and lions, and (115) a b.-f. phiale omphalotos, with ten "mantle-figures." Scattered about were a lekythos with Dionysiac subjects; an olpē with Artemis carrying a stag, at-

tended by a panther, in the style of Pamphaios; an oinochoe with Dionysos, Apollo and Artemis; an ivory counter with an archaic Artemis carrying a stag; boat-shaped and serpent-shaped fibulae, rings of various kinds, three glazed scarabs, and two iron knives.

The finding of seven fibulae in a single tomb is an unusual fact in Greek burials.

TARENTUM.—The works carried on at Taranto during the last few years have yielded considerable archaeological material, which remains inedited in the local museum. Among other things many inscriptions have come to light, and although they are of no especial individual importance, Sig. Viola has done well to publish them in the *Not. d. Scavi*. With the exception of a few fragments they are all sepulchral, and were collected during the works of the military engineers within and about the marine arsenal.—*Not. d. Scavi*, 1894, pp. 61-71.

A ROMAN NECROPOLIS.—In making roads about the city a Roman necropolis has been found consisting of tombs cut in the rock and of sarcophagi. Several inscribed stelae were found.—*Not. d. Scavi*, 1893, pp. 252-255.

TERAMO-INTERAMNA.—Five interesting inscriptions have been found at Teramo, in Picenum.

(1) Q · POPPAEO · Q · F · | MVNIC · ET · COLON | PATRONO. He is mentioned in other Interamnian inscriptions, in *CIL*, ix, 5074, 5076, together with his brother, Caius Poppaeus. Interamna, as we learn from the stone, was both a *municipium* and a *colonia*, which existed side by side in the territory of the commune. The lettering is of the early Empire.

(2) L · FISTANVS L · F · [L ·] TATTAIENVS · L · BARCHA · II VIR [I · I]TER · IN · CAMPVM · EX · C(onscriptorum) D(ecreto) · [P]EQVNIA · SOCIORVM · CAMPI FACIVNDVM · COERAVERE · EIDEMQ(ue) · PROBAVERE. On the other side: EXTRA MACERIA[M] IN AGR. M... | ... PRECAR... cf. *CIL*, ix, 5076. The magistracy here mentioned is that of the colony.

(3) . . C · F · SILV[ANVS] | BALNEAS RE[FIC]. The nature of his office cannot be ascertained, but the inscription must relate to restorations of the baths.

(4) . . VS · DEDICAT EPVL | s]ING · DEC · HS · XX · N · SE | v]IR · ET · AVG · HS · X · PLE | b]EI · HS · IIII · N · DEDIT: see Pannella, *Rivista abruzzese*, ann. viii, fasc. vi, p. 285.

(5) HERC · NEL in archaic letters. NEL may be an obscure local title. Cf. *Herculi ponderum* in *CIL*, vi, 336. The stone was used as a weight, equivalent to fifty Roman pounds.—*Not. d. Scavi*, 1893, pp. 351-55.

VELLETRI.—A PREHISTORIC TOMB WITH AN URN A CAPANNA.—An archaic tomb a *capanna* has been found at Velletri similar to the famous ones found in 1817 and after in the archaic necropolis of Alba Longa,

which led to so much discussion, because it was maintained that they were covered by a layer of peperino emitted in liquid state from one of the Lateral craters. The tumulus found at Velletri measured a metre in height and was a metre in diameter at the base (Fig. 4.)

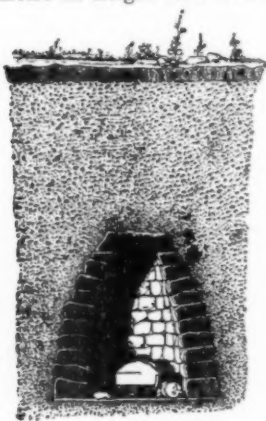


FIG. 4.—PREHISTORIC TOMB AND CABIN-SHAPED URN AT VELLETRI.

On its bottom was the cabin-urn (*urna a capanna*) containing the burned bones and a bronze fibula, and around the urn were the vessels. The tumulus was constructed of pieces of lava, roughly shaped, about 20 m. thick, with cement, and the top was closed with a larger piece of lava roughly shaped like a low truncated cone. The courses of lava projected slightly as they ascended, so that the tomb took a form very similar, on a small scale, to the Greek *tholoi* or domical tombs of the prehistoric period. It appears that another similar tomb was formerly found near this one, but its contents were dispersed.

The site is in the region of the ancient necropolis, but it is not ascertained whether there is a continuity of tombs between this point and the part of the necropolis that has yielded Etruscan tombs *a cunicolo*, and others, superposed in strata, of ever-decreasing age, until we reach the Byzantine period.

In commenting upon this discovery Prof. Barnabei says: "As much has lately been said and written about this form of ossuary, distinctive of certain regions of Germany and our necropoli of lower Etruria and Umbria, I think it useful to give here an exact reproduction of the Velletri urn, from the side and front." At a sitting of the Academy of the Lincei, Dr. Taramelli read a paper entitled *The cabin-shaped cinerary urns discovered in Europe*, in which he refers to this urn, and gives a careful summary of everything known regarding this class of objects. The new urn cannot belong to the earliest type, which is distinguished from the later mainly by the form of the roof, which reaches the ground. At the same time it is interesting to note that this, like other Latial urns of the same type, differs from those of the Etruscan necropoli, in that the perimetral support, on which rests the entire framework of the roof, is not a continuous wall, in imitation of a mud wall or one held together with straw, but is in imitation of a wooden frame,

with uprights ending in a fork planted at equal distances and joined together by interwoven flexible branches. These Latin cabins are then a genuine imitation of the *casa straminea*, or rather of the *casa de canna straminibusque*, as it is called in classic writers (Ovid, Tibul., Dionys.) To understand this properly it would be necessary to expose here the studies made by Count Adolfo Cozza, to show how these cabins were constructed, for he has taken account not only of what Vitruvius says on the subject, but has also studied the primitive system *still in use* among the shepherds in the more abandoned and deserted parts of Lower Etruria and Latium.

Awaiting the opportunity of a complete publication of these interesting investigations by Cozza in connection with the illustration of the Faliscan antiquities of the Papa Giulio Museum, Barnabei here presents a summary of these views, which, it must be remembered, are to be credited entirely to Cozza and not to him.

"If the most ancient cabin was the circular house, then the cinerary cabin-shaped urns that have been found do not represent this primitive form of habitation. The circular form was the easiest to construct, and is the system that is still followed in the Maremmas. A cavity is dug, the earth heaped around it in a circle; in this dyke are planted the forked sticks (*furcae*) which are bound together by twisted vines: against some of these forked sticks are leaned diagonally, at equal distance, six heavy poles, which meet at the summit and are strongly bound by vines at the point where they meet the uprights. All are then united by rings made of flexible twigs. On this framework is fastened the thatch. As the framework was made stronger the lower part of the poles—below where they joined the uprights—was suppressed, and the pointed circular roof rose directly from these uprights. This was the second form, still circular. However, there are no cinerary urns that reproduce either of these types. The desire for increased internal space led, probably, to the elliptical form, which is that represented by the fictile urns." [It seems rather doubtful whether any cabins of this elliptical type can be proved to have actually been constructed. Have they not been evolved from the archæologist's brain by a process of reasoning backward: that, given the plastic imitation, an original must have existed?] The construction of this type of cabin is far more elaborate and difficult than that of the circular form, and it is here most ingeniously explained in details that would be here out of place. Suffice it to say that the form of the roof changes from the sharp conical to an incipient gable, and that every feature of the fictile urns is practically justified.—*Not. d. Scavi*, 1893, pp. 198-210.

VETULONIA.—THE QUESTION OF THE SITE.—Prof. Halbherr writes to us from Crete: "Since my last 'Notes from Italy' were penned (*Athen.* No. 3465) a postscript has become necessary. The commission appointed by the Ministry of Public Instruction to examine the site where it was said a new Vetulonia had been discovered has concluded that there are no traces there of a real city, but only of some ancient building, perhaps a temple. There are, however, some archaeologists who, relying on the texts of certain authors, maintain that the site of the Vetulonia of historic times was more in the direction of Massa Maritima, while that of the archaic period would remain identified with the acropolis excavated by Cav. Falchi."—*Athenæum*, April 28.

THE "PIETRERA" JEWELRY AND SCULPTURES.—In a late issue of the JOURNAL (VIII, 4) we noticed the excavations at Vetulonia made at different times during the last four or five years. The interesting results reached by the excavation of the tumulus of *la Pietrera* in 1891 were described. Since that time further details have come to hand in Falchi's report published in the December number of the *Notizie degli Scavi*, regarding the excavations at *La Pietrera* in 1892.

The explorations in 1892 commenced from the outside, and traversed that part of the tumulus which had been pierced in 1882: it is the part of the tumulus which borders on the ancient street of tombs. The first thing to be encountered was the gigantic terrace which once surrounded and sustained the tumulus, composed of a wall about three metres in thickness built of *Sassovivo* and of *Sassoforte* stone. At a depth of 2.70 m. and 17 m. from the central construction, at the same spot where two gold bracelets and a necklace were discovered in 1891, there was found a disorderly pile of stones, covering a group of broken pottery. Except for two common yellowish *balsamaria* of the so-called "Pelagic" type all were of the same *bucchero* ware that was met with in all the stone circles. Later on two cones of *Sassoforte* were found, which marked the site of funerary deposits.

Second tomb.—The first cone was 0.45 m. in diameter and 0.35 m. high, at the NNE. of the tumulus, one metre below the surface and 14 m. from the centre. Below the cone was found a skeleton and the following objects were scattered around it by the cracking of the earth: (a) two heavy gold bracelets; (b) 58 pierced gold balls; (c) 36 gold pendants for necklace; (d) many fragments of thin silver plate; (e) two hollow silver lion-cubs; (f) two broken *balsamaria*; (g) bronze fibulae, broken; (h) iron fibula; (i) amber and ivory; (k) human teeth and bones. The objects, however, that were to the left of the head and all those near the lower limbs remained in place. These comprised: a silver bracelet, two fibulae of bronze and one of iron, with gold leaf, unguent vases and many pieces of *bucchero* ware. The

tomb was excavated at 2.20 m. below the surface and was without covering or protection. The ornaments were grouped at the head of the skeleton, the bucchero ware at its feet, both being covered and broken by a pile of shapeless stones that had been thrown in on them. The skeleton lay transversely along the radius of the tumulus turning its left side toward the centre.

The gold bracelets are similar in form and design to those found during the previous year in this very tumulus, and to those found in the circle tombs called *dei monili* and of *Bes*. The main difference lies in the added embossed figured decoration. They consist of a broad gold band .06 m. wide by .15 long, with two additional narrower bands which make the total length .29 m. The main strip is composed of eight smooth gold bands, whose edges are joined by a delicate gold thread that is made to form varied patterns, while a heavier thread outlines the whole. The peculiarity of this bracelet lies in the four rectangular gold plaques placed at the ends of the different strips and decorated with human representations in relief. On each of the two larger plaques are four heads, in front view, with long, large upward-slanting eyes, heavy lips, a scroll decoration about the ears and a row of neck-pendants. (Fig. 5.) On the two smaller plaques are three schematic

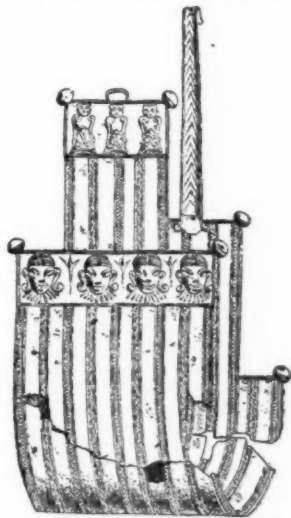


FIG. 5.—BRACELET FROM SECOND TOMB AT VETULONIA.

figures with arms pressed to sides and long straight skirt. The Hator-like heads remind one of Hittite seals. The thirty-six gold pendants, which belonged to a long necklace, are also of embossed work, and

each one is filled with a human bust of somewhat similar design to the heads on the bracelets, except that the faces are fuller, the scroll decoration has turned into braided curls and the neck-pendants have been turned into an anthemion-like decoration.

Third tomb.—Another smaller cone was found displaced, and it apparently originally covered the third tomb for inhumation discovered at 21 m. from the centre on the west side of the tumulus. The skeleton was placed across the radius. The contents of this tomb were unimportant.

Fourth tomb.—A fourth cone was found at a depth of 1.50 m., on the n. w. side 0.16 m. from the centre. At a depth of 1.60 m. below it, i. e. 3.10 m. from the surface, were found two groups of formless stones, about 1.90 m. apart, corresponding to the head and feet of a skeleton deposited in the earth quite unprotected at the sides and above, lying on its back at right angles on the radius of the tumulus, with one arm extended and the other on the body. The body could not have ever been protected by a wooden case, and the funerary objects left their mark on the stones that touched them.

Around the head were arranged in order many objects in silver and many balsamaria; under the neck were worn three gold necklaces with some pieces of amber and a few bronze fibulae a *sanguisuga*; two gold bracelets were around the arms, and at the feet a mass of earthenware smashed by the stones. The skeleton was covered, at least as far as the pelvis, with a garment of silver or silver-thread to which were fastened small ribbons of gold leaf, of equal size, 2 cent. long and half a cent. wide, arranged in various directions but always at right angles and at a certain distance. This silver stratum was no longer anything but a dust. Sig. Falchi says: "Outside of the gold bracelets and necklaces I can say but little of this very rich deposit, and it is uncertain whether it can ever be recomposed. I was able to satisfy myself that it was in general identical with that of the second tomb, being arranged in the same way and having the same lion-cubs, the same objects in silver a *ciambella*, the same balsamaria, and the same kinds of bucchero ware: there was lacking merely the silver plaque which I supposed to belong to a small coffer. . . However beautiful and of inestimable value are the ornaments of the second tomb described above, far superior in elegance to those found in the preceding year and to those from the stone circles, still, the bracelets and necklaces that are about to be described have not their equals either in delicacy of workmanship or in actual value, and may be admired in the drawing here reproduced (fig. 2). The technique and form are the same but they are far larger, heavier and more richly decorated than those of the second tomb. The bracelets are 34½ cent. long—and there-

fore made for an uncommonly large arm—6 cent. wide, and weigh 72 grammes (fig. 6). They are formed of eight equal smooth bands of gold



FIG. 6.—BRACELET FROM FOURTH TOMB AT VETULONIA.

joined together by a delicate pattern of the finest hair-like gold threads. Four of these bands in the centre project considerably beyond the others at both ends. One of these projections ends in a long slender band by which the bracelet is fastened. At the end of each wide and narrow band is fastened a gold plate decorated in relief. The two wide plates have in each case four fronting faces in half-relief with low foreheads, Oriental lineaments, up-curling tresses, and an anthemion-like necklace, of the same type as those in the bracelet of the second tomb but more artistic in type and execution. On the narrower end-plates is a kneeling female figure in close-fitting garment and with raised hands between, in one case two rampant winged lions, and in the other two lions resting on their hind quarters but with forelegs raised. Falchi suggests that the female figure is the goddess Astarte. At all events the type and composition are thoroughly Ori-

ental and analogies can be found in Persian, Assyrian, Babylonian, Hittite and Syrian as well as Phœnician works.

Of the three necklaces one is composed of balls of gold, hammered into human faces, like those described above; the second consists of 23 pendants with human faces, slightly different from the preceding, and above them a gold cylinder with a hole for stringing; the third is similar to the preceding, only that each of its ten pendants has two smaller heads in relief instead of one.

Among the many silver objects are: two fibulae a *mignatta* with a decoration added in filigree of the same technique as the bracelets, like others found in the stone circles; two silver lion-cubs of the same dimensions and attitude as those of the second tomb; four large objects—perhaps bracelets—ending in lion-heads.

The group of fictiles at the feet of the body consisted of the usual bucchero ware in fragments.

Fifth tomb.—On May 10 a fifth cone disclosed the presence of another sepulchral deposit, 15 m. from the centre and 0.40 m. from the surface. The two groups of stones were 1.20 m. below the cones. The skeleton was found under all the same conditions as above. The objects found on and about the skeleton were not of remarkable interest.

The excavations were stopped here, leaving two-thirds of the tumulus still to be explored, and giving good hope of important discoveries in the future.

New excavations inside the hypogeum.—The two successive domical hypogeums erected in the centre of the tumulus have been already described (JOURNAL, vols. VIII and IX). When, soon after its erection, the first of these tombs fell in, it was found necessary, in order to build the second tomb upon its crushed walls, to remove all the earth of the tumulus above it, to carry off the ruins of the fallen dome, remove the sepulchral monuments that had been buried and crushed under the ruins, and strengthen the walls that remained standing in order to enable them to support the weight of the new structure. The excavations of this year have shown how all this was done; how the great spur was built up in the centre of the old walls; and how the entire substructure was buttressed and connected by immense blocks.

The first efforts were directed toward finding the earlier corridor, leading from the outer edge of the tumulus to the first hypogeum. This was done without difficulty, and it was found to have been filled in with squared or wedge-shaped blocks of *sassoforte* and with thin slabs of the same. This early corridor follows the same course as the second, at a depth of 2.85 m. below it. It is 22 m. long, or eight metres longer than the second, and opened on the street of tombs which anciently bordered the tumulus. Its walls are largely of slabs

of *sassomorto*, not placed upright, as is the case in the upper passage, but leaning outward, and instead of being parallel, as in the upper passage, they widen out as the passage proceeds toward the open; so much so that the passage which, like that above, has a width of 0.90 m. at the entrance to the chamber, attains a width of 2.70 at the outer entrance. The height of its walls, also, increases in a similar way, but only as far as the entrance of the upper passage, when they begin again to diminish in height. Thus, from a height of 1.80 m. near the entrance, it reaches a maximum of 3.17 m., describing a curve instead of following a straight line. At a certain point the walls are no longer inclined and made of *sassomorto*, but are upright and of granite. It is evident, therefore, that the passage was in part (*sassomorto*) excavated in the tumulus, with walls, but without vaulting, and in part built in the open of granite blocks and covered with slabs, forming a long alley of diminishing width leading toward the centre of the mound.

It would be impossible, on account of the great amount of demolition, to ascertain what annexes there may have been to the primitive structure. It is certain, however, that no such side cells existed as those of the second tomb.

An interesting group of *bucchero* vases was found at the entrance to the lower passage, evidently placed there by the builders of the second monument.

Sculptures belonging to both chambers.—It has already been stated (JOURNAL, VIII, p 627) that these two domical chambers appear to have contained monuments of women only, whose life-size nude figures, carved in stone, reclined upon funeral beds. Among the fragments of such monuments that came to light during this campaign are the following:

- (1) Female head of natural size (fig. 7), of yellow *pietra fetida*, with large pointed oval face, large almond-shaped eyes, small mouth with projecting lips, low forehead and hair divided in the centre and falling behind high and prominent ears in curls that are then brought forward over the shoulders. This is the same type as is reproduced by the dozen in the beautiful jewelry (bracelets and necklaces) already described.



FIG. 7.—ARCHAIC FEMALE HEAD IN STONE FROM HYPOGEUM, VETULONIA.

- (2) Slab of yellow *pietra fetida* having in relief natural size the upper half of a nude female figure, without the head (fig. 8); the arms are brought together between the breasts, the fingers of the small hands being shut

and the thumbs pointing upward. The figure seems to be in the attitude of repose, as if the head had rested on a pillow. The regular hollow made at the neck shows that the head must have been carved in a separate block and attached. Prof. Milani believes that the head described above belongs to this figure, but Sig. Falchi objects that the bust was found among the undisturbed ruins of the lower tomb, and certainly belongs to it, while the head was found near the surface and could hardly have belonged to any but the later monument. There appears, besides, to be some difference in the color of the two stones.

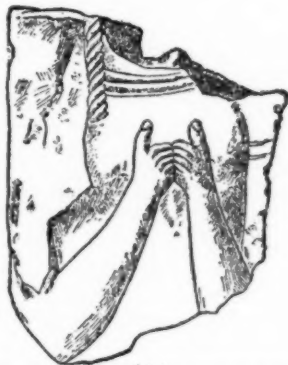


FIG. 8.—FRAGMENT OF FEMALE FIGURE IN RELIEF FROM HYPOGEUM, VETULONIA.

(3) Tablet of *sassofetido* on which is carved merely a decoration of meanders: it was found 3.50 m. below the present surface of the tumulus, and belongs to the earlier tomb.

(4) Head of a woman, of natural size, with the face almost completely defaced. The mass of hair, arranged in curls on the front, falls behind in long perpendicular strings.

At the conclusion of his report Sig. Falchi remarks, after speaking of the building of the second tomb: "The tumulus thus enlarged served for the burial of illustrious persons, all or nearly all women, whose bodies, robed in all their ornaments of gold and silver, were deposited in deep trenches, excavated in the earth of the tumulus unprotected and uncovered, and then stoned at the head and feet and covered with earth: they were all arranged in one direction, turning their left side toward the centre, in the same way as has been found to be the case in a stone circle in the Sagraona. The contents of these tombs is in all things similar to the great quantity found in the stone circles, except for the arms, domestic utensils and furnishings for chariots and horses, which appear in all the circles, but have not yet been found in the tumulus of *la Pietrera*.

"I may add, as I have already had occasion to remark, that these tombs—as well as the deposits which I have termed foreign that have appeared in the primitive necropolis of Poggio alla Guardia, with similar grave objects, but with only the teeth of the deceased—are all in complete antagonism to the character and style of the Italic well-tombs of Vetulonia and of all the necropoli of Etruria, and are similar, in a less advanced stage of culture, only to the famous

tombs found at no great distance from Rome, such as those of Caere, Vulci and Palestrina." This fundamental fact is developed by Falchi in his *Vetulonia e la sua necropoli antichissimi*.—*Not. d. Scavi*, 1893.

CHRISTIAN AND RENAISSANCE ART OF ITALY.

INSTITUTE OF ART HISTORY.—A circular has been issued on the part of a number of the leading gallery directors and art historians of the Continent, proposing the foundation of an Institute of Art History on lines somewhat analogous to those of the German Archaeological Institute at Rome. The main objects of such an institute are described as being (1) the establishment of the richest and most systematic collection possible of materials for the study of art history, in the shape alike of books, photographs, and other reproductions of all kinds; (2) the appointment of a resident director qualified to organize the library and collections, to guide students in their researches, and to stand as a kind of official head and leader of these studies. The place designated as the most appropriate centre for such an institute is Florence, and it is proposed to attempt to make a beginning by means of private donations and subscriptions, before appealing for aid in the shape of Government subventions. Among the signatories of the prospectus are Dr. Bode, of Berlin; the Commendatori Cavalcaselle and Gnoli, of Rome; M. Hymans, of Brussels; Prof. Justi, of Bonn; Prof. Lützow, of Vienna; Prof. Venturi, of Rome; Prof. Schmarzow, of Leipzig; Dr. Bayersdorfer, of the Munich Gallery; and Dr. M. G. Zimmermann. The three gentlemen last named are the provisional executive committee for carrying out the scheme.—*Athenæum*, April 21.

The full text and complete list of signers is given in the *Archivio Storico dell' Arte*, 1894, March-April.

LOMBARD ARCHITECTS AND NORMAN ARCHITECTURE.—The connection between Lombard and Norman architecture has been recognized to be very close, especially since the works of Dartein on Lombard and of Ruprich Robert on Norman architecture. That the Lombard Romanesque was the earlier of the two seems hardly susceptible of doubt. Clustered piers, ribbed cross-vaulting, broad galleries over the nave—these fundamental features are to be found in Lombardy not only earlier than in Normandy but in more logical connection. The use of clustered piers in early Norman churches where wooden roofs were still used instead of vaults—whereas the entire *rationale* of such piers was based on cross-vaulting—this feature alone would be sufficient to show that the style did not originate in Normandy but was copied, and the logical conclusion was that it was derived from Lombardy. Thus far, however, but little evidence for this fact has been gathered, so that the editor was impressed by reading a passage in the *Archivio Storico*

Lombardo (1894, 2). It is in a review, by Pietro Rotondi, of Giuseppe Merzario's recently-issued book on the Comacine artists, *I Maestri Comacini, storia artistica di mille duecenti anni* (600-1800). This is the passage: "È narrato di un vero esodo di maestri Comacini passati in Francia, verso il mille, dietro la guida di S. Guglielmo d'Orta. Questo Sacerdote architetto nacque di nobile schiatta nell'isoletta di S. Giulio del lago d'Orta; e andato in Francia, vi eresse molti santuari, pei quali dovette colà attirare numero grandissimo di uomini della sua patria, dice una cronaca francese, cioè di maestri Comacini. Invitato poi dal Duca di Normandia, trovò che molto bene poteva fare in quel paese; e vi stette, circondato dai suoi artefici, bene venti anni fondandovi quaranta monasteri, la fisionomia dei quali si ripeté per tutto il settentrione Europeo."

Without examining the book itself, to see what documentary foundation such statements rest upon, they can be accepted only *cum grano salis*. The statement is briefly this: An architect monk or priest, William, born on an island in lake Orta, went to France where he built many churches and gathered about him many artists of his own nation. He then, on the Duke's invitation, settled in Normandy, where he lived for twenty years surrounded by his workmen, and founded forty monasteries.

I am not aware of having seen this series of facts mentioned before; and perhaps they may, if correct, solve the problem of the rise of Norman architecture.—[ED.]

PRESERVATION OF THE MONUMENTS OF LOMBARDY.—During 1891 and 1892 a different arrangement was made, under the auspices of Minister Villari, for the custody of the artistic patrimony of Italy. The new method consisted in the organization of *uffici regionali*, or provincial boards, each of which takes charge of a certain region, such as Lombardy, Venetia, Tuscany, the Marches, etc. A detailed appreciation of the plan was given by Luca Beltrami, apparently its originator, in the *Nuova Antologia* of 1892, No. VII. The task is complex and difficult, and the training of a suitable personnel, the establishing of satisfactory relations with the government, with communal, religious and other public and private bodies having monuments in charge, is one that will take a long period of time and hard work to accomplish. It must awaken the interest of the masses, which is so deficient, enlighten the general ignorance, which is so dense, harmonize the various interests which are so discordant and contentious. What it has taken more than half a century to do in France may well occupy Italy for at least as long.

The fruits of the first year's work of the *Ufficio Regionale* for Lombardy (1892-3) are shown in a business-like report by Luca Beltrami

published in the *Archivio Storico Lombardo* (1893, No. 3). To it should be added the work on the preparation of a catalogue of all the works of art in the province, and an historico-artistic bibliography of Lombardy.

ITALIAN PAINTINGS IN PRIVATE GERMAN GALLERIES.—This is the title of a series of jottings by Fritz Harck, published in the *Archivio Storico dell' Arte* (Nov.-Dec., 1893). The illustrations are of Jacopo da Valenzia, Tiberio d'Assisi, Correggio. The paintings illustrated and the rest of those described are in the gallery at Sigmaringen. An interesting Venetian painting of the xiv century is by the rare master Paulus, and is signed and dated 1358. The inscription should read evidently *MCCCLVIII Paulus cum Johanninus filiu eiu piserunt hoc op.*

The paintings at Sigmaringen number 235, and are mostly German and Dutch. Of the Italian a dozen belong to the xiv cent.

PHOTOGRAPHS OF MONUMENTS.—We wish to call attention to two collections of photographs of mediæval monuments made by Sig. R. Moscioni, the Roman photographer (10, Via Condotti). The first series, made on behalf of the Italian Ministry of Public Instruction, is entitled *Apulia Monumentale*. They are 235 in number, and of larger than normal size; and they give an admirable view of the wealth of mediæval architecture—Norman, Swabian, Angevin and Aragonese—to be found in Bari and the adjoining provinces. These Romanesque monuments are among the finest and largest in Italy, and are most important for the history of architecture. They have hitherto been almost inaccessible to students. The photographs are sold separately, unmounted, at one franc.

The second collection is of mediæval monuments of the Roman province and similar works in the province of Naples, especially the decorative mosaic-work applied to articles of church furniture, such as pulpits, altar-tabernacles, paschal candlesticks, sepulchral monuments and the like.

THE ART OF EMILIA.—Sig. Venturi publishes in the *Archivio Storico dell' Arte* (March-April, 1894) a study on the painters of Emilia (*L'Arte Emiliana*), dedicated to the Burlington Fine-Arts Club of London, in view of their approaching exhibit of this school in paintings drawn from the private galleries of England. It is well known to specialists that Sig. Venturi has for several years made a critical study of the school of Ferrara, the principal centre of painting in Emilia. In this article he gives us a foretaste of more extensive studies. It is recognized that before Cosmè Tura the school of Ferrara affords no clear history, and that he may be regarded as its founder. He was born in 1429 or 1430, and died in 1495. The strength and individuality of his genius are every day becoming better recognized.

His works at Ferrara, Berlin, London, Paris, Bergamo and Venice are well known. Up to the present none were known in Rome. Venturi has lately discovered five in private Roman collections, the most important being the fragment of the *ancona* of Bishop Roverella, recorded by Bigo Pittorio in his *Tumultuario*, which used to be in S. Giorgio fuori le mura at Ferrara. A part of this picture is in London, from the Frizzoni collection; the top is in the Louvre (*Pietà*), from the Campana collection. The part now in the Colonna gallery in Rome formerly went on the right side of the London central section. It is here finely illustrated in phototype. The other side was also formerly in the Colonna gallery, but has disappeared; the same collection has, however, two other paintings by the same master, both of which are reproduced here in half-tone.

If during late years Cosmè Tura's personality has been more clearly determined, that of Francesco del Cossa (died 1480) has been totally reconstructed, and that of Ercole Roberti (died 1496), made more characteristic by distinguishing his work from that of Ercole Grandi. These were the three principal masters of the school of Ferrara, and around them were grouped many others, several of whom ought to be brought out of their present obscurity.

Venturi seeks also to straighten out matters between the youthful Garofalo and l'Ortolano. Morelli attributed wrongly to Garofalo an entire group of paintings that should be assigned to Gio. Batt. Benvenuti, called l'Ortolano. This group Venturi enumerates, and some of the pictures are reproduced in half-tone.

Then follow notes on Battista Dossi and pictures wrongly assigned to him, and on the myriad uninteresting pupils of Lorenzo Costa and Francia.

Finally, a few words are said on the relations of the schools of Modena, Reggio and Parma, partly dependent upon Ferrara.

LEONARDO'S CODEX ATLANTICUS.—Signor Ulrico Hoepli, of Milan, has now ready for issue to subscribers the first part of the monumental facsimile edition of the Codex Atlanticus of Leonardo da Vinci, which he is publishing on behalf of the Accademia dei Lincei. The whole work will consist of about thirty-five parts, each containing forty heliotype plates, reproducing the drawings and text of this celebrated ms., together with a transcription of the text in the original orthography, and also a modernised form of it, made by Dr. Giovanni Piumati. Ultimately, there will be added a vocabulary, giving the meaning of obsolete words. The issue is limited to 280 copies, at the subscription price of £48; and it is not expected that the entire work will be completed before the end of the century. It is unnecessary to dwell upon the supreme importance of this ms., not only as an auto-

biographical document, but also for the history of science and art during the Renaissance. But it is a pleasure to draw attention to the admirable manner in which the facsimile has been executed, and to the superb character of the print and paper.—*Academy*, July 14.

LEONARDO DA VINCI AND AMBROGIO DE PREDIS.—“Few more interesting documents,” writes a correspondent, “have ever been discovered than that relating to Leonardo da Vinci’s ‘Vierge aux Rochers,’ which has lately been unearthed at Milan, and published separately by Signor Motta in the *Archivio Storico Lombardo*, and by Signor Frizzoni in the last number of the *Archivio Storico dell’Arte*. In the first place it throws new light on the position of the Milanese painter Ambrogio Preda or de Predis, hitherto only known by his signed portraits of the Emperor Maximilian at Vienna and of a young man in the Fuller-Maitland collection, the latter of which was one of the principal objects of interest in the recent exhibition at the New Gallery. On the strength of these, several other portraits in the manner of Leonardo da Vinci had been assigned to this master by Morelli and his school. The new document exhibits Ambrogio in the light not of a mere distant imitator of Leonardo, but of his intimate associate and partner in art undertakings. It consists of a petition, signed by the two artists in common, to the Duke of Milan requesting his interposition to secure them proper treatment from the confraternity of the ‘*Scolari della Concezione*’ of St. Francis at Milan. They allege that having executed for that body an altarpiece in gilt relief-work, two pictures of angels, and one of Our Lady (the latter specially defined as the handiwork of ‘*il dicto fiorentino*,’ i. e., of Leonardo himself), they have received payment only for the amount they are actually out of pocket on the gilt altar-work, and that the said scholars are trying to defraud them in regard to the rest by valuing the picture of Our Lady at only twenty-five ducats, whereas it is worth a hundred ducats, and an offer has actually been made for it for that sum by a person from outside. They therefore petition either that a fresh valuation may be made on oath by properly qualified experts, or that they may be allowed to take possession of the painting and dispose of it to the bidder of the higher figure from outside. Now that the picture thus in dispute is Leonardo’s original ‘*Vierge aux Rochers*’ is beyond a doubt. But which version of the picture? that formerly belonging to Francis I and now in the Louvre, or that which was actually seen by Lomazzo in the chapel of the Conception at the church of San Francesco, and which afterwards passed, through the collections of Lord Lansdowne and Lord Suffolk, into the National Gallery? Those who hold on internal evidence by the originality of the Louvre version will infer from this document that the petitioners were allowed to repossess

themselves of Leonardo's work and sell it to the outside bidder (presumably from France) whom they mention, replacing it in the church of San Francesco by a pupil's copy done at the price the confraternity were willing to pay, which copy would be the version now in the National Gallery. Those, on the other part, who see the true hand of Leonardo in the London version, must conclude that the confraternity were allowed to retain Leonardo's work, presumably on payment of the full demand, and that a copy was made to be sent to France. Unluckily no answer to or judgment on the petition is preserved to decide the point. I understand that the question is to be fully discussed in an article by Dr. J. P. Richter in the forthcoming number of the *Art Journal*."—*Athenæum*, April 28.

NUMISMATIC PUBLICATIONS.—Among recent Italian numismatic books the two following are notably good: (1) NICOLÒ PAPADOPOLI, *Le monete di Venezia descritte ed illustrate*; (2) ARSENIO CRESPELLANI, *Medaglie estensi ed austro-estensi edite ed illustrate*. The work on Venetian coinage is to be complete in three volumes, of which only the first has been issued.

COSENZA.—**DISCOVERY OF THE TOMB OF ISABELLA OF ARAGON.**—Sig. Nic. Arnone has an interesting note on some royal tombs in the cathedral of Cosenza. That erected to Henry, son of Emperor Frederick II, in 1242, was destroyed in 1574, and must have been, from all accounts, a magnificent mausoleum. Isabella, daughter of John I of Aragon, wife of King Philippe le Hardi, of France, died at Cosenza in 1271, after the disastrous return from the crusade. Although her body was taken to France, and a monument erected to her in St. Denis, which still exists, the canons of the cathedral of Cosenza apparently erected a memorial to her, which has been re-discovered lately in the course of restorations. It is at the end of one of the side aisles, and consists of an arch enclosing three trefoil pointed arches with tracery, similar in form to the advanced windows in French gothic cathedrals of the XIII century. Under each of the three arches is a figure: in the centre the Virgin and Child, on the right King Philip, crowned and kneeling, and on the left a similar figure of Queen Isabella. The material is tufa, and there are still traces of the gilding [and probably painting]. Sig. Arnone quite correctly judges the sculpture to be by a French artist. Not only is this certainly the case, but the style clearly shows him to have belonged to the Ile de France, and to stand related to the earlier sculptors of Notre Dame. The figure of the Virgin, for instance, is but a later example of the fine statue of the Virgin against the middle pier of the main portal of Notre Dame. Sig. Arnone compares also the composition to that of the group in the tympanum of the *Porte Rouge*, where Louis IX and his wife Marguerite are repre-

sented kneeling in the same way before the figure of the Virgin bearing the Child.

MONZA.—CHALICE OF GIAN GALEAZZO VISCONTI.—Mgr. Barbier de Montault publishes in the *Arch. Stor. dell' Arte* (March-Apr., 1894) the large silver chalice of the treasury of Monza. It is partly gilt, and, while in its form it is monumental and seems almost to have been designed by an architect, its chief beauty lies in its details. The foot represents a rose and is divided into six lobes, each one being sub-divided into others. It is decorated with the elaborate arms of the Visconti, which are demonstrated to be those of Gian Galeazzo Visconti and to contain a motto, *A BON DROIT*, which he did not adopt until 1394, and the imperial eagle, not granted him until 1395. Visconti died in 1402. The chalice is decorated with many figures and statuettes.

NAPLES.—MONUMENTAL PLAN OF THE CITY IN THE XI CENTURY.—Sig. B. CAPASSO has finished the publication in the *Archivio Storico per le provincie Napoletane* (1893) of a very important monograph on mediæval Naples. It is entitled *Piante della città di Napoli nel secolo XI*, and treats in detail of the topography and monuments of the city during the XI century under the following heads: (1) walls, towers and gates; (2) regions, streets and alleys; (3) cathedral, major (parochial) basilicas, diaconal churches; (4) minor churches, collegiate and hermit churches, oratories and chapels; (5) monasteries of men and women; (6) public works, public civil constructions and private houses; (7) the suburbs; (8) conclusion. The circuit of Naples in the XI and XII centuries was found to be about two miles and a third, or 4,500 metres. How rich the city and its neighborhood—which is included in the study—were in early-Christian and early-mediæval monuments can hardly be imagined without a perusal of this masterly monograph, which is a treasure-house of material for the topographer and archæologist. The author is not only familiar with printed sources but has an unrivalled acquaintance with inedited documents bearing on the question. As Naples occupied so interesting a position with its semi-Byzantine civilization, the questions involved in its early mediæval history are unusually worthy of study. For details we can do nothing but refer the reader to the *Archivio*, expressing the hope that the author may issue his monograph separately. As a companion to this work should be consulted an historical study published contemporaneously in the same review by M. SCHIPA. It is entitled *Il Ducato di Napoli* and traces the history of the city principally during the time illustrated by the monuments mentioned in Capasso's work, namely, the time that elapsed after the conquest by Belisarius and the subsequent establishment of a Byzantine duke at Naples which remained, with intervals of independence, under the suzerainty of Byzantium up to the XI century.

Capasso is the director of the *Archivio di Stato* of Naples, and his familiarity with the documents is thus explained. He has lately published a great collection of documents relating to the early mediæval history of Naples, during the time of the duchy, under the title: *Monumenta ad Neapolitani ducatus historiam pertinentia*. This monumental work is in three volumes. It is upon this work that Schipa mainly bases his historic reconstruction of this period referred to above.

COINAGE OF CHARLES III OF DURAZZO.—It was until quite recently thought that Charles III of Durazzo did not coin money during his very short reign, owing perhaps to the extremely generous output by the Neapolitan mint, under Charles II and Robert, of *gigliati* and *robertini*. The discovery by Carpentin of a little denarius of Charles III seemed not to invalidate the thesis, as it was quite probable that such small coinage should have been issued for public convenience, while no addition to the silver coinage was required.

Only lately, however, in 1893, there were found two specimens of a *gigliato* coined by Charles III. The city of Solmona coined several types, under Charles III, of *bolognini* and *tornesi*. In the registers of Charles III there are two documents concerning the Neapolitan mint. The first is of 1382, naming as *maestro di prova* for the metals of the mint Maestro Antonio de Raymondo. The second document, of 1383, repeats two ordinances of Robert, of 1321 and 1326, by which the privileges are confirmed that had been accorded to the coiners of Brindisi and Messina by Frederick II and by other sovereigns to those of Naples. A list is given of the officers of the mint and of the artists who worked in it in 1321, and of those who were added in 1326 on account of the increased emission of *gigliati*; and, finally, the list of the artists and workmen of the Neapolitan mint who worked in 1383. Here we find the name of the artist who made the moulds, Mo. Ignazio Vespulo de Pino, and that of the Director of the Mint, Mo. Turino Birorelli.—A. SAMBON in *Arch. Stor. per le prov. Napoletane*, 1893, 2.

PARENZO.—THE CATHEDRAL AND ITS MOSAICS.—Sig. Giacomo Boni gives us a remarkably interesting study on *The cathedral of Parenzo and its mosaics* in the last number of the *Archivio Storico dell' Arte* (March-Apr., 1894). The entire structure with its decoration is a work of the sixth century, and bears the strongest analogy to the contemporary monuments of Ravenna: is in fact by the same school. "Inferior to the churches of Ravenna in size alone, the cathedral of Parenzo equals them in beauty of execution, and surpasses them in the completeness of its plan with its atrium and baptistery."

Among interesting observations by Boni are these. He denies that the stuccoes on the northern arches are of the Renaissance, showing by other examples that they belong to the original decoration of the

sixth century. Fortunately they have not been torn off like those at S. Ambrogio, Milan, in the ignorant zeal to put the building in its *original* condition. The capitals at Parenzo are of the following types: (I) lotus leaved=S. Vitale, Ravenna; (II) Byzantine composite; (III) twisted basket-work; (IV) with animals in place of volutes; (V) with birds in place of volutes; (VI) basket-shaped=S. Sophia, Const.; (VII) variation on II. These types are excellently reproduced here in half-tone illustrations. In the apse the revetment of marbles and porphyry reminds of that of S. Sabina at Rome, and more distantly, in some parts, of that of S. Sophia at Constantinople. It is composed of red porphyry, green serpentine, opaque enamel, white onyx, terracotta of various colors and mother-of-pearl which is used not only in the mosaics but in disks formed of entire iridescent shells. The monogram of Euphrasios shows all this decoration to be contemporary with the building of the church under Justinian.

The figured mosaics are all the more important that they have hitherto escaped the restorations that have disfigured or practically destroyed the majority of Christian mosaics. Since Jackson described them, ten years ago, many discoveries have been made in the cathedral, among them being the mosaics of the triumphal arch, consisting of Christ and the twelve apostles, which were discovered in 1891. Boni gives good half-tones of a number of these mosaics, and shows a thorough appreciation of the peculiar beauties and harmonies of Christian mosaics when left in their original condition. He makes a strong and well-founded protest against modern ruthless restoration of so mechanical a description, which changes the purposely irregular arrangement of cubes into one of mathematical regularity, and gives us a crude and staring parody of the original. He studies the question of the juxtaposition of colors as illustrated by mosaics, and closes by making the suggestion that in future restorations the same method be followed as in S. Giusto at Trieste, where the face of the mosaics having been covered with sixteen thicknesses of paper, glued together, a wooden frame was constructed to give it solidity; then the wall to which the mosaics were attached was demolished, the bed of the mosaics scraped off, a bed of Portland cement laid in its place and on this the vault was reconstructed. When the mosaic was uncovered it was found that not a single cube had moved.

How lamentable it is to pass in review the works of art that might have been saved had this simple process been everywhere employed. S. Mark's at Venice, S. John Lateran at Rome and many others would still have retained their vanished charm.

PAVIA.—CONSUL CYRUS.—An inscription found among the material of the church of S. Maria del Popolo is important on account of its mention of the consul Cyrus. It reads, as restored by Barnabei :

[hic r]equiescit in pac[e

[qui vixit in] seculum [ann

. s aug. Cyro cons(ule)

It is the first time that the mention of this Consul, who held the fasces alone in the year 441, has been found on an inscription. His promulgation in the East was not known in the West until very late in the year, and the inscriptions thus far known bear the date *p(ost) c(onsulatum) Valentiniani v et Anatolii*.—*Not. d. Scavi*, 1893, p. 348.

PISA.—MONUMENT OF EMPEROR HENRY VII.—The well-known monument of Henry VII in the Campo Santo at Pisa forms the subject of a monograph by G. Trenta (*cf. Riv. Stor. Ital.*, Apr.-June, 1894). He shows how it was first placed in the cathedral, how its position there was changed in 1494, when its base was added, and how a second change of position was made in 1727. On the occasion of the restorations in the cathedral in 1829, the monument was transferred to the Campo Santo. Among the documents published by Trenta at the close of his pamphlet is especially to be noticed the note of expenses made in 1315 by the Pisans to pay Maestro Tino, the sculptor of the monument.

ROME.—THE CATACOMBS OF THE SALARIA VETUS AND THE CEMETERY OF S. HERMES.—Comm. de Rossi has given us in the last number of his *Bullettino* one of the delightful monographs that are always welcome from his master hand. It is entitled *La cripta dei SS. Proto e Giacinto nel cimitero di S. Ermete presso la Salaria vetere*, but although the crypt of Protus and Hyacinthus is made the centre of the study, the cemetery of S. Hermes, of which it forms a part, is studied, and the writer begins with a notice of the other various early Christian cemeteries along the Via Salaria Vetus.

In 1893 the Commission of Sacred Archæology decided to bring to light once more the historic crypt of the famous martyrs Protus and Hyacinthus in the cemetery of S. Hermes. It had been discovered by Padre Marchi in 1845, and then, after the barbarous manner of that time, had been filled in again with earth.

The vie Salaria Vetus and Pinciana.—The Christian cemeteries of the Salaria Vetus have never been treated. On pl. I-II, accompanying this monograph, is given the plan of the cemeterial zone of the Salaria Vetus and surrounding roads, which was prepared by De Rossi between 1886 and 1888, when the excavations between the Salarian and Pincian gates led to the discovery of a piece of road with tombs of the late Republican and early Imperial periods. This section of road

was evidently coördinate with the ancient road that came out of the old Porta Collina, on the site of the present Palazzo delle Finanze, and formed the beginning of the Salaria. Aurelian's wall interrupted and suppressed this beginning: in place of it was substituted the section issuing from the Porta Salaria, called Salaria Nova, and that from the Porta called Pinciana from its hill. A special plan of it has been published by Marucchi and Tomassetti. De Rossi's plan has many additional data.

The road now to be described is called in some documents Via Pinciana. The name is ancient. It was applied from the beginning only to that section of the road from the rise at *Capo le case* to the walls, and thence to the double branch of the Salaria: *ubi pervenit ad Salarium nomen perdit* (cod. Malmesbur.), that is to say, when it reaches the bifurcation now called *del Leoncino*, whence the roads proceed, on the right to the cemetery of Felicitas, on the left to that of Hermes. It thus joins the *Salaria Nova* on the right and the *Vetus* on the left.

Here is the cemetery of Hermes. This cemetery is always designated in the best ancient documents by the name either of Basilla or of Hermes, *cæmeterium Basillæ vel Hermetis via Salaria vetere*. This is good proof of the classic use of the name *Salaria vetus* denied by Nibby. Only in the VIII cent. is it called *via Pincia*.

Christian cemeteries of the Salaria Vetus.—On the first section of the *Via Pinciana* from the gate to the bifurcation called *del Leoncino* no indication of any Christian catacomb has ever appeared. Any Christian inscriptions found here must have been transported. Hardly do we reach this point when the necropoli begin. Here was a catacomb, mentioned by Boldetti and Giorgi (ms. Casan. xi), which extended from the borders of the Villa Nari on the left of the *Salaria Nova* under the vineyard that extends on both sides of the fork. The name and history of this catacomb are equally unknown. Passing onward to the fork called *delle Tre Madonne* along the *Salaria Vetus*, we find on the right a catacomb which Comm. de Rossi has proved (*Bull.* 1865, p. 1) to be the catacomb of S. Pamphilus. He explored a small section of it in 1865, but Bosio had seen more of it. Who were S. Pamphilus and the other martyrs of this catacomb named in the itineraries, is not known. Between the two forks should probably be placed a nameless and unknown catacomb mentioned in the Cod. Barb. xxx, 91, f. 36. The alley of S. Philip on the right must have been so named from Philip son of Felicitas who was buried along the *Salaria Nova* in the catacomb of Priscilla.

Taking the other branch of the *Salaria Vetus* at the fork, along the right-hand side of the road, there should be the *coemeterium ad Septem palumbas ad caput S. Joannis in clivum Cucumeris*. In this famous

catacomb, which is called *in clivo Cucumeris* or *ad vii palumbas*, a group of famous martyrs was buried. Comm. de Rossi has attempted to find it, but in vain. When, on opening the new road called *dei Parioli*, an entrance was found leading to subterranean galleries with *loculi*, of the usual Christian type, it was hoped to be a part of it; but it proved to be apparently a small private catacomb, immediately opposite that of S. Hermes, perhaps belonging to some funeral association.

Catacomb of S. Hermes.—Quite a distance before reaching the catacomb called of Hermes, Basilla, Protus and Hyacinthus, by the *Itinerarium Einsuldense*, on the left side of the Salaria Vetus, there must have existed a catacomb, for here were found at the close of the last century many Christian cemeterial inscriptions, one of which bore the date 298 A. D. Comm. de Rossi cannot say whether this is a continuation of those of Hermes or Pamphilus, or whether it is distinct from these and bears a name unknown to us. He has therefore marked it on his plan *coemeterium*. . . ?

Bosio recognized the catacomb of Hermes and Basilla in the present vineyard of the German College. This attribution was confirmed by an inscription with the letters HERME. . . on a fragment of epistyle found by Comm. de Rossi and recognized as being in the inscriptional style of Pope Damasus; also confirmed by an epitaph invoking BEATA BASILLA. For many centuries it was confused on the one hand with the catacomb of Priscilla and on the other with that *ad clivum Cucumeris*.

The origin of the catacomb is obscure. In the apocryphal Acts of Pope S. Alexander, Hermes is called prefect of Rome under Emperor Hadrian. The inscriptions found in the catacomb show that it is as early as the second century, perhaps even as early as about the time of Hadrian. Among the early inscriptions are the following:

XVIII KAL AVRELIVS PRIMVS
SEPT . AVG LIB · TABVL ·
ET COCELA · ATHENAIS
FILIAE FECERVNT
AVRELIAE PROCOPENI
QVE BIXIT · ANN · XIII · MESIBVS III
DIEBVS · XIII · PAX · TECV ·

The name of the wife of this Aurelius Primus carries the inscription back to about the time of Nerva, and the language is in harmony with this early date, especially the apostolic formula *pax tecum* at the close; and it is likely that this Aurelius was a freedman of Marcus Aurelius rather than of Caracalla or any other of the Augusti Aurelii of the third century. Of a still earlier date, probably in the first half of the second century, is an inscription to Tryphonilla. Of remarkable interest is a third inscription, now in the Kircherian Museum, found

above the catacomb. It was in the form of a stele, and probably belonged to the cemetery above ground, and the inscription alludes to the *fratres* who probably owned the land as an association. The *titulus* was erected by *Alexander duorum Augustorum servus* to his son *Marcus Caputafricesi qui deputabatur inter bestitores*, that is, to his son who was educated in the *Caput Africae*, and hence destined to be an imperial *vestitor*. The well-known blasphemous crucifixion scratched on the walls of the *paedagogium* of the imperial palace shows that there were among the youth educated at the palace some who were held up to scorn as Christians. The date of this inscription is regarded by Prof. Gatti as being the reigns of Marcus Aurelius and Lucius Verus. A second inscription, surmounted by a relief of the second or third century of the Good Shepherd between two sheep, must also have come from the cemetery above ground. The inscriptions, therefore, prove the early existence here of a cemetery both above and below ground.

Of the many inscriptions found at different times in the galleries of the catacomb many have the nomenclature and formulas belonging to the earliest families of catacomb inscriptions. Hence it was not surprising that during the late investigations Comm. de Rossi found traces of inscriptions painted with minium on tiles, like those in the catacomb of Priscilla. De Rossi says: "There are many arguments which combine to prove to me that there existed also in S. Hermes groups of Christian inscriptions worthy of being placed, if not by the side of, at least close after those of the cemetery of Priscilla."

"The centre from which the cemetery of S. Hermes radiated its galleries in various directions is an ample basilica on the level of the second floor of the subterranean network of galleries. The basilica is composed of a single nave which the *Liber Pontificalis* (ed. Duchesne, I, p. 509) calls *mirae magnitudinis*. It is not, like others of the same kind, one of the Christian churches built in the time of peace and triumph, but is contemporary with the very beginnings of the catacomb. It is even earlier, as Marchi has proved, for it appears to be the bath of a villa adapted to its new use by its owner who became a Christian. In it probably rested the first eponym of the site, the martyr Hermes. The itineraries are not clear on this point: I understand them to mean that Hermes and Basilla were laid in two different places in the same subterranean basilica. Behind its apse, in 1876, Prof. Mariano Armellini discovered access to a vast quarter of the cemetery containing several painted *cubicula*, one of which has now been disinterred and appears to belong to the third century. Here also were found many epitaphs of the same period worded in beautiful and interesting epigraphic formulas."

The details of these discoveries—which will be referred to in Prof. Marucchi's communication immediately following—are passed over by De Rossi in order that he may confine himself to the crypt of SS. Protus and Hyacinthus and the discoveries made there during 1893.

The ancient stairs leading down to the crypt of SS. Protus and Hyacinthus.—The discovery of the historic crypt in which the tombs of these two famous martyrs were venerated for centuries, and especially the finding there of the *loculus*, still untouched, of the martyr Hyacinthus with its primitive inscription still *in situ* and with the ashes of his bones, was the greatest archæological revelation made in 1845 by Padre Marchi. It may be regarded as a unique fact, in view of the fame of the saint, and the transfers to the city-churches of all important relics of saints during the VIII and IX centuries.

The first step toward reopening this crypt was to find and clear the ancient stairs built in the times of peace to facilitate access, and concerning which information was given by a poem written by a priest named Theodore. At the bottom of the stairs there appeared faint traces of a painting of about the VI cent., representing the Saviour standing between two young saints—evidently the two saints to which the crypt was sacred.

One of the ancient walls of the stairs was anciently restored, covering up an inscribed marble slab closing a tomb bearing the consular date of the year 400. It is a metrical inscription composed of hemistiches taken from other metrical inscriptions, a pot-pourri in the style of those of Commodianus, regardless of the rules of prosody. The eulogy is that of a man named Felix, deceased at the age of 64, among whose praiseworthy actions was the renovation of the sanctuary. This corresponds exactly with the period of Pope Damasus, who flourished from 366 to 384, during the early and middle manhood of this Felix. As Theodore coöperated with Damasus in building the stairs, so Felix coöperated in renovating the oratory above ground and the subterranean crypt. Considering its historic interest, we here reproduce the inscription as emended by Comm. De Rossi :

Felix digna tulit parum (*senex*) munera C(h)risti
 Et suo con(*ten*)tus habuit per saecula nomen
 Laeticum renovans p(*rima ab o*)rigine templum
 Infandaqu(*e fu*)giens istius iurgia saeculi
 Certum est in regn(o *caelest*)i (p)erque amoena virecta
 Istum cum ele(tis erit habitu)m praemia digna
 Semper et adsiduae benedici pro munere tali
 Qui vixit an. LXIII m. VIII. d. XXIII dep. vi. idus. Jan.
 Fl. Stilicone. cons(ule)

Among the rubbish filling the stairs were found many fragments of sepulchral inscriptions, the greater number belonging to the necropolis above ground, as is shown by the size and weight of the stones and their paleography, which is that of the period when the use of open-air cemeteries prevailed. There are remains of consular dates of the iv and v centuries, and in one case a *lector tituli* is mentioned. Some fine fragments were found of the eulogy of Protus and Hyacinthus by Pope Damasus, the text of which is known from the codex Einsildense and from half of the original transferred to the church of SS. Quattro Coronati during the Middle Ages.

Besides the stairs built by Theodore in the time of Damasus, leading immediately down to the crypt of Protus and Hyacinthus, another narrow one, less near to the crypt, was seen by Padre Marchi and has now been reopened. At its foot is the *arcosolium* decorated with biblical scenes in mosaic, which Marchi and many after him have regarded as a work added for the decoration of the crypt, perhaps by Pope Symmachus at the close of the fifth century. But the recent investigations have shown that these mosaics belong to the original and special decoration of the private tomb of one who obtained the privilege of being buried near the martyrs *sociatus sanctis*.

Crypt of SS. Protus and Hyacinthus.—Padre Marchi carefully described and illustrated the crypt of the martyrs Protus and Hyacinthus. But the inscription being removed from the *loculus* and the pavement above being destroyed the historic crypt soon went to ruin. The question arises, in view of the re-discovery of this crypt, how it was that martyrs so famous, among the foremost on the Roman calendar, should have received so poor, so mean a burial. The reason for not removing the remains to a more worthy resting-place is easy to see in the indisposition to disturb the ashes of the saints. There remains to be explained the original selection of the humble place. Comm. de Rossi believes he has found a clue to this in some mss. of the Hieronymian Martyrology which connect the two saints with Eugenia and Basilla, who were martyred under Valerian according to tradition. Now, Valerian was the first to forbid to the Christians the entrance to the Catacombs under pain of death. Under the stress of such adverse circumstances it is easy to fancy in what haste the bodies may have been buried without time for the selection of a suitable location.

Historical Inscription of the time of Damasus.—The excavations at the foot of the stairs leading down to the crypt of the martyrs Protus and Hyacinthus have been crowned by the discovery of an important historic monument. Within a *loculus* were found sixteen fragments of an inscription in Philocalian characters which form the second part of the *hesartich* of the priest Theodore, by whom was built the stair-

case which gave direct access to the tomb of the saints, as stated above. Its text was already known as the Vatican Palatine codex 833. The fragments found give approximately the last half of every line. Taken together, the codex and the remaining part of the original give the following text:

*aspice descensum cernes MIRABILE FACTUM P
sanctorum monumenta VIDES patefacta sepulchris
martyria hic proti tumulus IACET ADQVE YACHINTI
quem cum iamdudum teGERET MONS TERRA CALIGO
hoc Theodorus opus construxit PRESBYTER INSTANS
ut domini plebem opera MAIORA TENERENT ♡ P*

Before this discovery the age of the poem and of Theodore were not really known, although the style led generally to its attribution to Pope Damasus. It is now seen that, notwithstanding the errors in prosody in the last line, the form of the letters proves the poem to proceed from the Philocalian school which was employed by Damasus: hence Theodore was contemporary with Damasus and his works undertaken in honor of Protus and Hyacinthus.

Certain imperfections, however, in the execution of the letters show that they are not by the hand of the famous *Furius Dionysius Philocalus* himself, but rather by the hand of an apprentice, under the direction, probably, of the priest Theodore. This inscription, therefore, does not quite come into the class of the inscriptions of Damasus.—*Bull. Arch. Crist.*, 1894, 1-2.

Summary of the above discoveries by Prof. Marucchi.—Comm. De Rossi did not, in the article summarized above, dwell on the discoveries made in the cemetery of S. Hermes outside of the crypt of Protus and Hyacinthus and its staircase. Prof. Orazio Marucchi has published a short account which is in some ways a brief supplement to this part of the work.

In the catacomb of S. Hermes, one of the most ancient and least explored of Rome, situated about two miles outside the Porta Pinciana on the old Via Salaria, the subterranean basilica has been cleared out, and some funereal galleries brought to light. This catacomb had its origin in the suburban sepulture of the martyr Hermes, who was put to death in the persecution under Hadrian, and it grew to a considerable extent between the second and third centuries. The researches of this year have revealed, to the right of the apsis of the basilica, a chamber of rectangular form more ancient in construction than the church itself, with a marble tessellated pavement. In front of the back wall are seen the remains of a tomb which must have been adorned with marbles, above which would seem to have been an altar. These religious remains, taken together with their nearness to the

basilica, which latter appears to have been built as an adjunct or enlargement to the primitive crypt, would incline to the belief that we have here the tomb of the martyr, hitherto sought in vain. During the last months the Roman archæologists have brought to light a flight of steps built by Pope Damasus in order to give access to the crypts of Saints Protus and Hyacinthus. Over the door of one crypt a fresco painting has been discovered, dating from the sixth century, and representing the two martyrs, one of whom bears his name written anorthographically thus, *Iaquintus*. At the foot of the steps the workmen have completely cleared out the small room which contained their tombs, which latter date probably from the time of Valerian. Amongst the rubbish brought out were some fragments of the poem inscribed on marble by the Presbyter Theodorus, when the ancient repairs were carried out. From another fragmentary inscription, found at the same time as the preceding, we learn that the works of Damasus and of Theodorus were continued by a certain Felix, who, in the area above the crypt, built a sacred edifice now no longer extant.

In another part of the same catacomb a sepulchral chamber was disinterred which revealed paintings of the third century. At the far end of the room is seen a representation of the gospel story of the multiplication of loaves—on the ceiling the sacrifice of Abraham, the Hebrew youths in the furnace of Babylon, and Daniel in the lions' den; while above the entrance is painted a woman veiled and praying, symbolizing the soul of one of the persons buried there. In one of the pictures are seen three fishes, in allusion to the well-known monogram of Christ; but they are grouped in a way not hitherto observed in other ancient Christian pictures. The galleries of this catacomb discovered towards the end of this campaign belong to the third and fourth centuries, and have furnished a large number of inscriptions.—*Athenæum*, July 14.

CATACOMB OF S. PRISCILLA.—Some new and interesting mural paintings have been found in the so-called Greek chapel of the catacomb of St. Priscilla, which is of much more ancient date than that of St. Hermes, and is noted for the discovery in it a few years ago of the tomb of Acilius Glabrio, Consul and martyr of the first century. The paintings now brought to light by the researches of Mgr. Wilpert belong to the first part of the second century, and are hence contemporary with the frescoes representing the story of Susannah found formerly in the same place. They consist of two scenes already painted in the catacombs of St. Hermes and elsewhere, namely, the sacrifice of Abraham, and Daniel in the lions' den, together with the resurrection of Lazarus, and an *agape* or banquet of the first Chris-

tians, which, owing to its mode of treatment, is suggestive of interesting questions.—MARUCCHI, in *Athenæum*, July 14.

TWO FAMOUS VIRGIN MARTYRS ON A SLAB FROM TERNI.—Comm. De Rossi writes: In the *Römische Quartalschrift* of Mgr. de Waal, 1893, No. 3, Mgr. Wilpert publishes and illustrates a Christian monument of great importance from Terni, which has been purchased by the Museum of the German Campo Santo, at the Vatican. It is a simple oblong slab of marble imitating the front of a sarcophagus carved in relief. In the centre under a pavilion is inscribed the sepulchral inscription of a little girl named Castula, who lived, it would appear, for only one year, though the editor prefers to read 5-ANN(OS)V. On the two sides of the inscription are figured in relief two maidens in the attitude of oranti. One is designated by the name AGAPE, the other by the name DOMNINA. The learned editor believes them to be two sisters or other relatives of the girl Castula, who had preceded her into the second life. These two names were read in the xvii cent. by Mazzancolli and Cittadini. . . In the *Bullettino* of 1871, p. 121, I lamented the loss of this important monument: and now it is not only found, but proves to be far more important than at first appeared. For it is a historic monument alluding to two illustrious martyrs of the Interamnan church. In the famous Hieronymian martyrology on Feb. 15, we read in all the larger copies and in some of the minor ones: *Interamnae natae sanctae Agape virginis*. Can this virgin be the *orante* represented on the Terni slab? Most assuredly, for in the same martyrology on the *VIII. Kal Maias* (April 14) among the martyrs of Terni, according to the excellent Berne copy we read: *Domninae virginis cum suis virginibus simul coronatae*. In other manuscripts the reading is *Dominae* and in other martyrologies *Domnae*. The Terni monument shows that the real reading is that of the Berne codex. The comparison of the slab with the above martyrologies makes it certain that the two praying figures, *Agape* and *Domnina*, represented on the sculpture from Terni, are the two famous martyrs of the Hieronymian martyrology. They are thus carved in relief, on either side of the inscription of *Castula* in order to attest the certainty felt by the survivors, that the innocent infant would be received by the two virgin martyrs in the eternal tabernacles symbolized by the pavilion and arches on the relief. Mgr. Wilpert justly remarks that the monogram of Constantinian form, the simple form of the epitaph and the style of the sculpture, are indications of the first rather than the last decades of the fourth century. The relief, therefore, is a noteworthy proof of the celebrity and cult of these virgin saints and martyrs in the cemetery of S. Valentino near Terni as early as the first years of the peace and triumph of the Christian Church.—*Bull. Arch. Crist.*, s. v; a. iv, 1-2.

VENICE.—PLAQUETTES IN THE MUSEO CORRER.—Emil Jacobsen describes plaquettes in the Museo Correr at Venice in the *Repertorium für Kunstwissenschaft* (1893, p. 54). Toward the end of the last century the Venetian nobleman Correr brought together a heterogeneous and valuable collection of works of art, especially works of Venetian origin, which he presented to his native city. The collection was increased after his death, and in 1880 was newly arranged and opened to the public as the Museo Civico e Raccolta Correr, in the old Fondaco dei Turchi, restored and rebuilt for the purpose. Among the important treasures of the collection are the bronze plaquettes. There is no proper catalogue of them, and Jacobsen gives a description of them, omitting those described in Bode's and v. Tschudi's Berlin catalogue, and in Molinier's "Les Plaquettes." He gives a description, with some discussion, of eleven imitations of antiques, two works of the Byzantine school, eighty-five of the Italian school, five of the French, fourteen of the German and one of the Netherland school. He also describes an etched iron plaque with family portraits of the Augsburg armourer, Anton Peffenhauser. The inscriptions of this plaque are published.

DESTRUCTION OF CHURCHES RECORDED IN THE XII AND XIII CENTURIES.—A Venetian MS. containing the *Regula S. Benedicti*, written in 1157, in the monastery of S. Gregorio, Venice, and a Calendar and Obituary of the same monastery, written in the XIV, contains also some interesting notes in a hand of the XIII century, founded evidently on XII century documents. As they are of interest for the vicissitudes of Venetian architecture in the Middle Ages, they are here in part reprinted from the *Nuovo Archivio Veneto* (1894, pp. 6-8):

(1106, Jan. 28.) *Anno Domini MC quinto die quarto exeunte ianuarii ignis exiuit de domo Henrici Çeni et combuxit VI ecclesias, scilicet sanctorum apostolorum, sancti Cassiani, sancte Marie matris domini, sancte Agathe, sancti Augustini et S. Stephani confessoris cum omnibus conuiciniis eorum.*

(1106, Apr. 5.) *Post sexagesimo octauo die MCVI die V intrante Aprili ignis exiuit de domo Caucaniri Dilmino, que combuxit XXIII ecclesias cum omnibus adiacentibus casis, scilicet ecclesiam et monasterium S. Laurencii, S. Eucharie cum cenobis, ecclesiam S. Seueri, S. Proculi, S. Marie formose, S. Scolastice, S. Marci cum palacio ducis, S. Bassi, S. Iuliani, S. Geminiani, S. Moisi, S. Mariæ iubanice, S. Angeli, S. Mauricii, S. Vital(is), S. Samuelis, S. Gregorii, S. Agnetis, S. Geruasii, S. Barnabe, S. Basilii, S. Raphaelis, S. Nicolai de dorso duro.*

(1116, Jan. 3.) *Anno domini MC sexto decimo die tercio ianuarii terre motus fuit ualde terribilis, unde multe ecclesie cum campanilibus corruerunt, et innumerabiles domus, turres et castra atque antiqua et noua edificia et montes cum rupibus corruerunt et ceciderunt, et terra in multis locis aperta*

*fuit, aquas sulfureas emanabat; et in illa die combusta fuit ecclesia S. Her-
macore et S. Johannis decolati cum multis casis.*

(1149, Oct.) *Anno domini MCXLIX mense octubri ignis exiuit de con-
finio S. Marie matris domini et combuxit XIII ecclesias cum ecclesia S.
Raphaelis.*

(1167, Dec. 15.) *Anno domini MCLXVII diē XV decembri intran(te)
exiuit ignis de solario S. Saluatoris et combuxit ecclesian S. Luce, S. Pater-
niani, S. Benedicti, S. Gabrielis, S. Samuelis, S. Barnabe et S. Basili cum
suis conuiciniis.*

Then follow some entries during 1177, especially relating to the
meeting of Pope Alexander and Emperor Frederick Barbarossa, and
speaking also of damage done by an inundation which made all the
inhabitants take to their boats: *Fuit quodam tempore maxima aqua per
mediam noctem et integram diem, ita quod nullus poterat stare in domibus;
unde maximum damnum de rebus abuerunt, et multi pueri, iuuenes et homi-
nibus in aqua perierunt.*

After a long interval comes another item in different ink:

(1220, Dec. 25.) *Anno domini MCCXX, in die natalis Domini mag-
nus terre motus fuit unde ecclesia S. Gregorii de Veneciis pro tere motu
cecidit.*

Then, in another hand:

(1284, Dec. 22.) *Anno domini MCCLXXXIIII die ueneris decimo
ezeunte decembri fuit maxima aqua, ita quod nulus proterat stare in terra
nisi super sufitas et solaria; et multi muri ceciderunt, et maximum damnum
de rebus abuerunt, et aliqui abierunt; et hoc fuit a media nocte usque ad
mediam terciam.*

A. L. FROTHINGHAM, JR.

Princeton, N. J., August 1, 1894.





METOPÉ HEAD FROM THE ARGIVE HERŒUM.

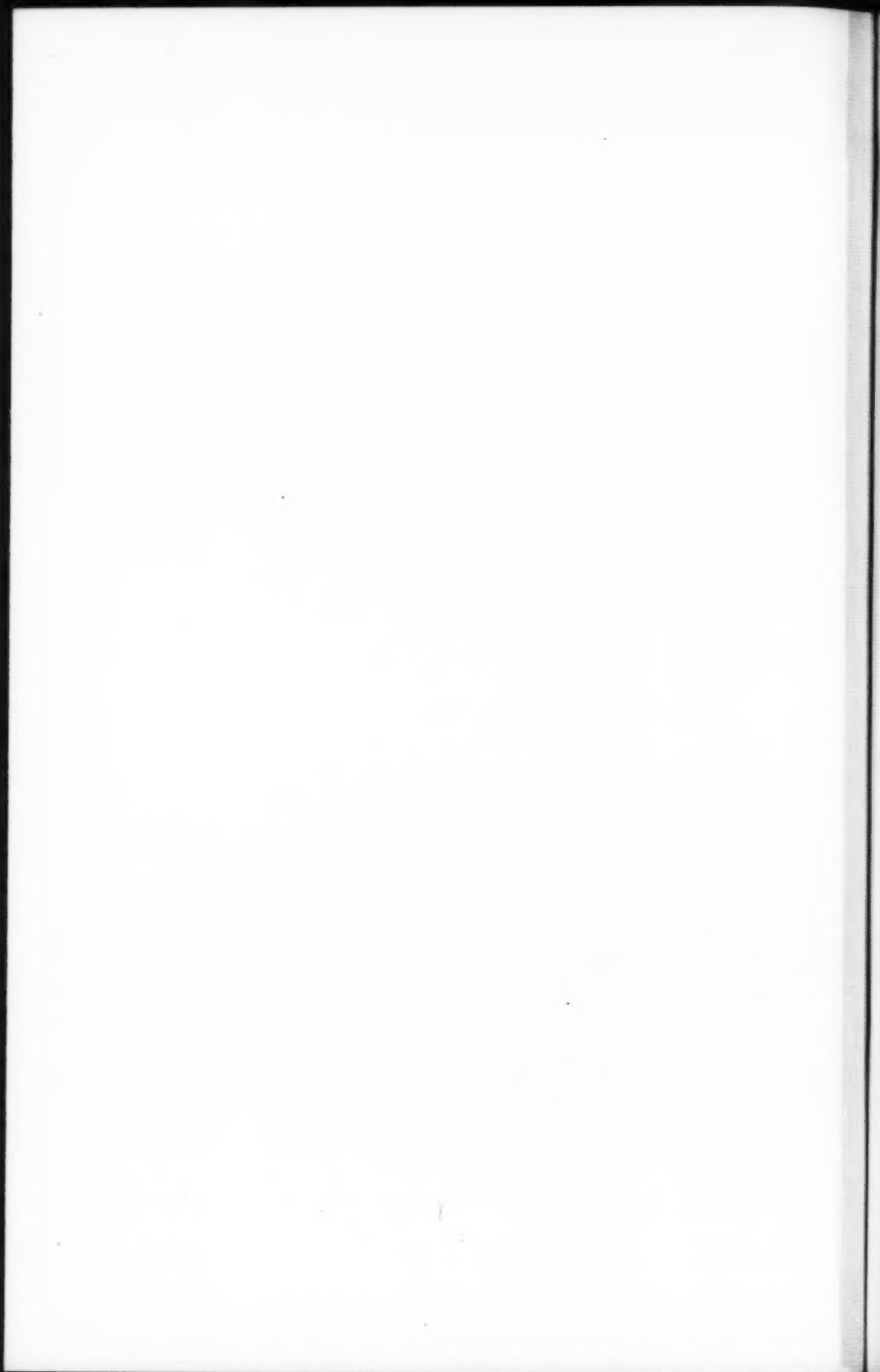




Fig. 1.

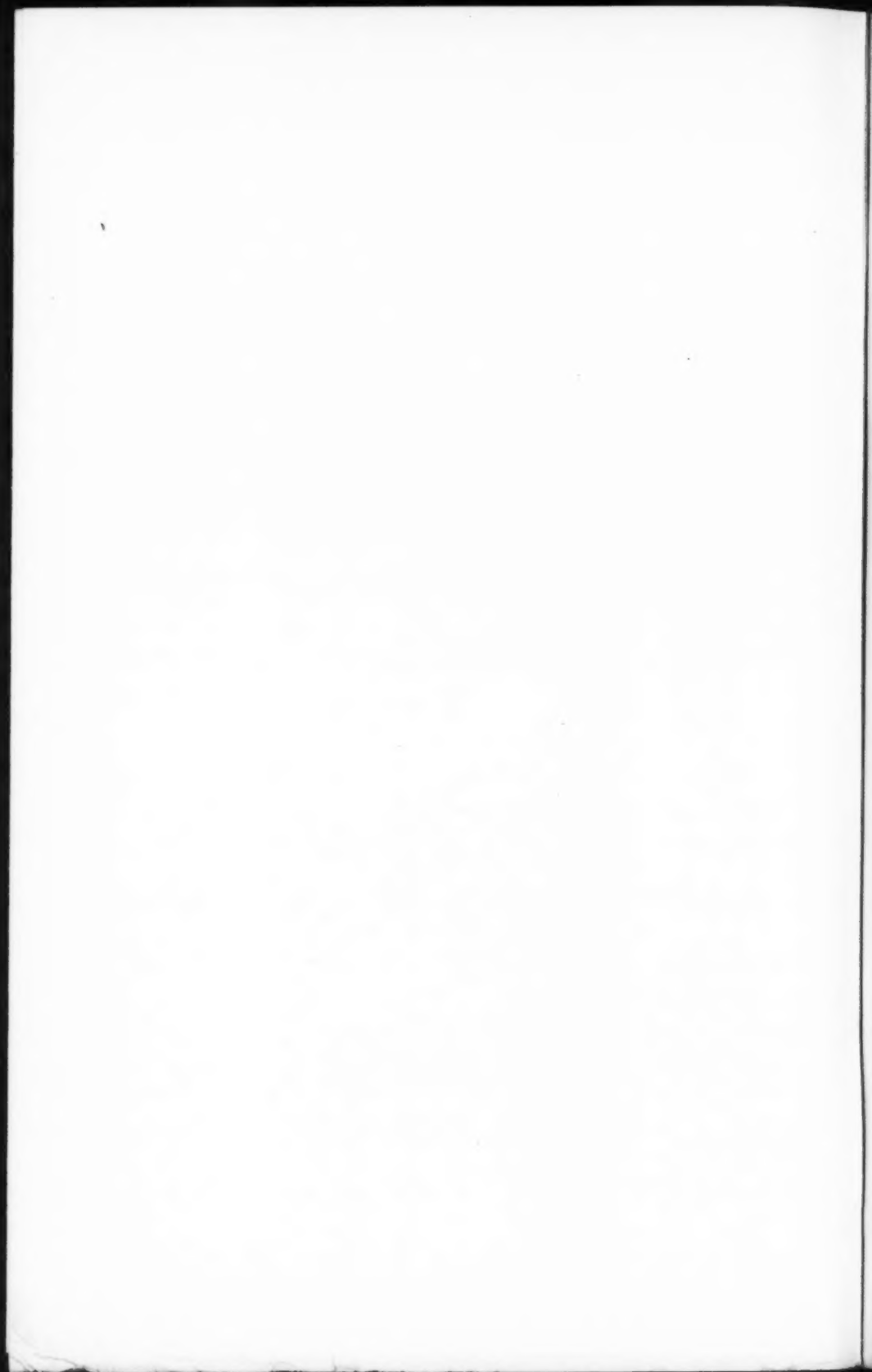


Fig. 2.



Fig. 3.

HITTITE SEALS.





HEINRICH VON BRUNN.